BNY MELLON

The Bank of New York Mellon Corporation
225 Liberty Street
New York, New York 10286

Prospectus for the employees of the European Economic Area ("EEA") (direct or indirect) subsidiaries of The Bank of New York Mellon Corporation in relation to The Bank of New York Mellon Corporation's equity incentive plans

Pursuant to Article 23 of the Law of June 16, 2006 on the public offerings of securities and the admission to trading of securities on a regulated market, the Belgian Financial Services and Markets Authority has approved this prospectus on March 12, 2018. This prospectus was established by the issuer and the issuer is responsible for this prospectus. The prospectus has been approved in connection with the operations proposed to the investors. The approval represents neither an assessment of the transaction's opportunity or quality nor the authentication of the financial and accounting information presented or more generally the issuer's position, by the Belgian Financial Services and Markets Authority.

This prospectus was drafted in accordance with Exhibits I and III of the Commission Regulation 809/2004 of April 29, 2004, as amended. This prospectus will be made available to the respective employees of the (direct or indirect) subsidiaries of The Bank of New York Mellon Corporation located in the EEA jurisdictions in which offerings under the respective equity incentive plans are considered public offerings. At the time of approval of this prospectus, these jurisdictions are Belgium, Ireland, Luxembourg, the Netherlands, and the United Kingdom. This prospectus will be notified to the competent authorities of these EEA jurisdictions in accordance to Article 18 of Directive 2003/71/EC of November 4, 2003, as amended. This prospectus will be made available on the intranet of The Bank of New York Mellon Corporation and free paper copies will be available to the employees upon request by contacting the Human Resources Department of their employer.

An investment in the shares as described in this prospectus is subject to risks. An investor faces the risk of losing a part or all of his invested capital. Before participating in the equity incentive plans of The Bank of New York Mellon Corporation, prospective investors should carefully read the entire prospectus, containing a description of the offer and the risk factors, with special attention to the risk factors (see Part I (Summary), p. 11 and Part II (Risk Factors), p. 22). Their decision should solely be based on the information contained in the prospectus.

Note to the prospectus

This prospectus was established in accordance with the principles laid down in the Belgian Law of June 16, 2006 on the public offerings of securities and the admission to trading of securities on a regulated market, as amended, in Directive 2003/71/EC of November 4, 2003, as amended, and in the Commission Regulation 809/2004 of April 29, 2004, as amended.

This prospectus contains, among other things, a summary conveying the essential characteristics of, and risks associated with, the issuer and the offered securities. More detailed information concerning the issuer and the securities to be offered is reflected in the exhibits attached to this prospectus. The documents referred to in the relevant chapters are also attached as exhibits to this prospectus.

Company responsible for the prospectus

The responsibility for this prospectus is assumed by The Bank of New York Mellon Corporation, a company incorporated and existing under the laws of the State of Delaware, U.S.A., with its principal executive offices at 225 Liberty Street, New York, New York 10286, U.S.A., represented by its Board of Directors. The Bank of New York Mellon Corporation ensures, having taken all reasonable care, that the information contained in this prospectus is, to the best of its knowledge, in accordance with the facts and that the prospectus does not contain omissions likely to affect the import of this prospectus.

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LIST OF EXHIBITS

I. Summary

Summaries are made up of disclosure requirements known as "Elements." These Elements are numbered in Sections A – E (A.1 – E.7).

This summary contains all the Elements required to be included in a summary for this type of securities and Issuer. Because some Elements are not required to be addressed, there may be gaps in the numbering sequence of the Elements.

Even though an Element may be required to be inserted in the summary because of the type of securities and Issuer, it is possible that no relevant information can be given regarding the Element. In this case a short description of the Element is included in the summary with the mention of "not applicable."

SECTION A — INTRODUCTION AND WARNINGS		
A.1	**Warning to the reader**	This summary should be read as an introduction to the prospectus. Any decision to invest in the securities should be based on consideration of the prospectus as a whole by the investor. Where a claim relating to the information contained in the prospectus is brought before a court, the plaintiff investor might, under the national legislation of the Member States of the European Union or States party to the European Economic Area Agreement, have to bear the costs of translating the prospectus before the legal proceedings are initiated. Civil liability attaches to those persons who have presented the summary including any translation thereof, and applied for its notification, but only if the summary is misleading, inaccurate or inconsistent when read together with the other parts of the prospectus or it does not provide, when read together with the other parts of the prospectus, key information in order to aid investors when considering whether to invest in such securities.

SECTION B — ISSUER		
B.1	**Legal and commercial name of the issuer**	The Bank of New York Mellon Corporation (the "Company" or "BNY Mellon").
B.2	**Domicile and legal form of BNY Mellon, the legislation under which the issuer operates and its country of incorporation**	BNY Mellon is a corporation incorporated under the laws of the State of Delaware, U.S.A., with its principle executive offices at 225 Liberty Street, New York, New York 10286, U.S.A.
B.3	**Description of the nature of BNY Mellon's current operations and its principal activities**	
BNY Mellon is a global investments company dedicated to helping its clients manage and service their financial assets throughout the investment lifecycle. It provides financial services for institutions, corporations and individual investors, delivering investment management and investment services in 35 countries and more than 100 markets.		
B.4a	**Recent trends**	In June 2017, BNY Mellon received confirmation that the Federal Reserve did not object to the Company's 2017 capital plan submitted in connection with the Company's Comprehensive Capital Analysis and Review ("CCAR"). The Company's board of directors subsequently approved the repurchase of up to $2.6 billion of common stock starting in the third quarter of 2017 and continuing through the second quarter of 2018. Additionally, in July 2017, the board of directors approved a 26% increase in the quarterly cash dividend to $0.24 per common share, which was also included in the 2017 capital plan. The first payment of the increased quarterly cash dividend was made on August 11, 2017.
B.5	**Organizational structure**	BNY Mellon is the parent company of the BNY Mellon group. BNY Mellon generally holds, directly or indirectly, the capital and voting rights of each of its subsidiaries.
B.6	**Interests in BNY Mellon's capital**	Not applicable. Pursuant to its Q&A, ESMA considers that Item 18 of Annex I of the Commission Regulation 809/2004 of April 29, 2004 (the "Prospectus Regulation") is generally not pertinent for offers of shares to employees and can thus be omitted from the prospectus in accordance with Article 23.4 of the Prospectus Regulation.
B.7	**Financial information concerning BNY Mellon for the fiscal years ended December 31, 2017, December 31, 2016 and December 31, 2015**	

Financial Summary

(dollar amounts in millions, except per common share amounts and unless otherwise noted)	**2017**	2016	2015
Year ended Dec. 31,			
Fee and other revenue	**$ 12,165**	$ 12,073	$ 12,082
Income from consolidated investment management funds	**70**	26	86
Net interest revenue	**3,308**	3,138	3,026
Total revenue	**15,543**	15,237	15,194
Provision for credit losses	**(24)**	(11)	160
Noninterest expense	**10,957**	10,523	10,799
Income before income taxes	**4,610**	4,725	4,235
Provision for income taxes	**496**	1,177	1,013
Net income	**4,114**	3,548	3,222
Net (income) attributable to noncontrolling interests *(a)*	**(24)**	(1)	(64)
Net income applicable to shareholders of The Bank of New York Mellon Corporation	**4,090**	3,547	3,158
Preferred stock dividends	**(175)**	(122)	(105)
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	**$ 3,915**	$ 3,425	$ 3,053
Earnings per share applicable to common shareholders of The Bank of New York Mellon Corporation:			
Basic	**$ 3.74**	$ 3.16	$ 2.73
Diluted	**$ 3.72**	$ 3.15	$ 2.71
Average common shares and equivalents outstanding of The Bank of New York Mellon Corporation *(in thousands)* **:**			
Basic	**1,034,281**	1,066,286	1,104,719
Diluted	**1,040,290**	1,072,013	1,112,511
At Dec. 31			
Interest-earning assets	**$ 316,261**	$ 280,332	$ 338,955
Assets of operations	**371,027**	332,238	392,379
Total assets	**371,758**	333,469	393,780
Deposits	**244,322**	221,490	279,610
Long-term debt	**27,979**	24,463	21,547
Preferred stock	**3,542**	3,542	2,552
Total The Bank of New York Mellon Corporation common shareholders' equity	**37,709**	35,269	35,485
At Dec. 31			
Assets under management *(in billions) (b)*	**$ 1,893**	$ 1,648	$ 1,625
Assets under custody and/or administration *(in trillions) (c)*	**33.3**	29.9	28.9
Market value of securities on loan *(in billions) (d)*	**408**	296	277
Return on common equity *(e)*	**10.8%**	9.6%	8.6%
Adjusted return on common equity – Non-GAAP *(e)(f)*	**11.4**	10.2	9.5
Return on tangible common equity – Non-GAAP *(e)(f)(g)*	**23.9**	21.2	19.7
Adjusted return on tangible common equity – Non-GAAP *(e)(f)(g)*	**24.4**	21.4	20.7
Return on average assets	**1.14**	0.96	0.82
Pre-tax operating margin *(e)*	**30**	31	28
Adjusted pre-tax operating margin – Non-GAAP *(e)(f)*	**32**	33	31
Fee revenue as a percentage of total revenue	**78**	79	79

Percentage of non-U.S. total revenue	**36**	34	36
Net interest margin	**1.14**	1.03	0.96

(a) *Primarily attributable to noncontrolling interests related to consolidated investment management funds.*

(b) *Excludes securities lending cash management assets and assets managed in the Investment Services business.*

(c) *Includes the assets under custody and/or administration of CIBC Mellon Global Securities Services Company ("CIBC Mellon"), a joint venture with the Canadian Imperial Bank of Commerce, of $1.3 trillion at Dec. 31, 2017 , $1.2 trillion at Dec. 31, 2016 and $1.0 trillion at Dec. 31, 2015 .*

(d) *Represents the total amount of securities on loan in the Company's agency securities lending program managed by the Investment Services business. Excludes securities for which BNY Mellon acts as an agent on behalf of CIBC Mellon clients, which totaled $71 billion at Dec. 31, 2017 , $63 billion at Dec. 31, 2016* and *$55 billion at Dec. 31, 2015.*

(e) *See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 118 of the Annual Report on Form 10-K filed with the U.S. Securities and Exchange Commission on February 28, 2018 (the "Annual Report", see Exhibit IV) for the reconciliation of Non-GAAP measures.*

(f) *Non-GAAP information for all periods presented excludes net income attributable to noncontrolling interests of consolidated investment management funds, amortization of intangible assets and merger and integration ("M&I"), litigation and restructuring charges. Non-GAAP information for 2016 and 2015 also excludes the (recovery) impairment charge related to the loan to Sentinel Management Group, Inc. ("Sentinel"). Non-GAAP information for 2014 also excludes the gains on the sales of the Company's equity investment in Wing Hang Bank Limited ("Wing Hang") and the Company's One Wall Street building, the charge related to investment management funds, net of incentives, and the benefit primarily related to a tax carryback claim. Non-GAAP information for 2013 also excludes the charge related to investment management funds, net of incentives and the net charge related to the disallowance of certain foreign tax credits.*

(g) *Tangible common equity – Non-GAAP for all periods presented excludes goodwill and intangible assets, net of deferred tax liabilities, which, at Dec. 31, 2017, have been remeasured at the lower statutory corporate tax rate.*

Financial Summary (continued)

(dollar amounts in millions, except per common share amounts and unless otherwise noted)	**2017**	2016	2015
Cash dividends per common share	**$ 0.86**	$ 0.72	$ 0.68
Common dividend payout ratio	**23%**	23%	25%
Common dividend yield	**1.6%**	1.5%	1.6%
Closing stock price per common share	**$ 53.86**	$ 47.38	$ 41.22
Market capitalization *(in billions)*	**$ 54.6**	$ 49.6	$ 44.7
Book value per common share *(b)*	**$ 37.21**	$ 33.67	$ 32.69
Tangible book value per common share – Non-GAAP *(b)(c)*	**$ 18.24**	$ 16.19	$ 15.27
Full-time employees	**52,500**	52,000	51,200
Year-end common shares outstanding *(in thousands)*	**1,013,442**	1,047,488	1,085,343
Average total equity to average total assets	**11.7%**	10.7%	10.2%
Capital ratios at Dec. 31,			
Consolidated regulatory capital ratios: *(d)(e)*			
Standardized:			
CET1 ratio	**11.9%**	12.3%	11.5%
Tier 1 capital ratio	**14.2**	14.5	13.1
Total (Tier 1 plus Tier 2) capital ratio	**15.1**	15.2	13.5
Advanced:			
CET1 ratio	**10.7**	10.6	10.8
Tier 1 capital ratio	**12.7**	12.6	12.3
Total (Tier 1 plus Tier 2) capital ratio	**13.4**	13.0	12.5
Leverage capital ratio *(e)*	**6.6**	6.6	6.0

Supplementary leverage ratio *(e)*	**6.1**	6.0	5.4
BNY Mellon shareholders' equity to total assets ratio	**11.1**	11.6	9.7
BNY Mellon common shareholders' equity to total assets ratio	**10.1**	10.6	9.0
Selected regulatory capital ratios - fully phased-in – Non-GAAP *(f)* :			
Estimated CET1 ratio *(d)* :			
Standardized Approach	**11.5**	11.3	10.2
Advanced Approach	**10.3**	9.7	9.5
Estimated SLR	**5.9**	5.6	4.9

(a) *The common dividend payout ratio was 25% for 2014 after adjusting for increased litigation expense, and 26% for 2013 after adjusting for the net impact of the U.S. Tax Court's decisions regarding certain foreign tax credits.*

(b) *See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 118 of the Annual Report (see Exhibit IV) for the reconciliation of Non-GAAP measures.*

(c) *Tangible book value – Non-GAAP for all periods presented excludes goodwill and intangible assets, net of deferred tax liabilities, which, at Dec. 31, 2017, have been remeasured at the lower statutory corporate tax rate.*

(d) *Risk-based capital ratios at Dec. 31, 2014 and Dec. 31, 2013 do not reflect the adoption of accounting guidance related to Consolidations (ASU 2015-02). At Dec. 31, 2014, risk-based capital ratios include the net impact of the total consolidated assets of certain consolidated investment management funds in risk-weighted assets ("RWAs"). These assets were not included in the Dec. 31, 2013 risk-based ratios. The leverage capital ratio was not impacted.*

(e) *At Dec. 31, 2017, Dec. 31, 2016, Dec. 31, 2015 and Dec. 31, 2014, the Common Equity Tier 1 ("CET1"), Tier 1 and Total risk-based consolidated regulatory capital ratios are based on Basel III components of capital, as phased-in, and credit risk asset risk-weightings using the U.S. capital rules' advanced approaches framework (the "Advanced Approach"). The leverage capital ratio is based on Basel III's definition of Tier 1 capital, as phased-in, and quarterly average assets. The Supplementary Leverage Ratio ("SLR") is based on Tier 1 capital, as phased-in, and quarterly average assets and certain off-balance sheet exposures. The capital ratios at Dec. 31, 2013 are based on Basel I rules (including Basel I Tier 1 common in the case of the CET1 ratio).*

(f) *The estimated fully phased-in CET1 and SLR ratios (Non-GAAP) are based on the Company's interpretation of the U.S. capital rules, which are being gradually phased-in over a multi-year period.*

B.8	**Pro forma financial information**	Not applicable. There are no significant gross changes as defined in Item 20.2 of Annex I of the Prospectus Regulation.
B.9	**Profit forecast**	Not applicable. This prospectus does not contain any profit forecast nor profit estimates.
B.10	**Qualifications in the audit report on the historical financial information**	Not applicable. There are no qualifications in the auditors' report.
B.11	**Working capital statement**	Not applicable. BNY Mellon's working capital is sufficient for its present requirements.

SECTION C — SECURITIES		
C.1	**Type and class of the securities being offered, including the security identification code**	The shares of BNY Mellon common stock having a par value of US$ 0.01 per share (the "Shares") offered pursuant to this prospectus can be either authorized but unissued Shares or treasury Shares, and are or will be, after their issuance, listed on the New York Stock Exchange (the "NYSE"). The ticker symbol for the Company's Shares is "BK." The ISIN Code of the Company's Shares is US0640581007.
C.2	**Currency of the securities issue**	The United States Dollar is the currency of the securities issue.
C.3	**Number of shares issued**	As of January 31, 2018, 1,009,749,214 shares of the registrant's common stock, $0.01 par value per share, were outstanding.
C.4	**Rights attached to the securities**	A participant shall have no rights as a shareholder by virtue of his or her participation in the offer until the date of the issuance of the Shares acquired under the offer (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company). Once the Shares are issued an employee participating in the offer will have the rights of a normal shareholder, including dividend and voting rights.
C.5	**Transferability restrictions**	Employees eligible to participate in the offer are also subject to BNY Mellon's Personal Securities Trading Policy (Exhibit VI), a copy of which they have received. Additional copies can be obtained through the Company's intranet site. In addition, during identified restricted periods, a limited group of employees may not engage in transactions in Company stock or may not be permitted to change their contributions to The Bank of New York Mellon Corporation Employee Stock Purchase Plan (the "ESPP"). The employees concerned will receive separate communications by e-mail if these restrictions apply to them. Finally, certain employees identified as material risk takers may be subject to additional holding periods after they vest in their restricted stock units or other awards received under The Bank of New York Mellon Corporation Long-Term Incentive Plan, as Amended and Restated through February 24, 2014 (the "LTIP").
C.6	**Admission to trading on a regulated market**	As noted in Element C.1 above, the Shares are listed on the NYSE.
C.7	**Dividend policy**	Subject to approval of the Board of Directors of BNY Mellon, dividends are typically paid on BNY Mellon's common stock quarterly

		in February, May, August and November.

SECTION D — RISKS

D.1	**Key risks related to the Company or its industry**	The risks related to the Company's business can be summarized as follows: • A communications or technology disruption or failure that results in a loss of information or impacts our ability to provide services to the Company's clients may materially adversely affect business, financial condition and results of operations. • A cybersecurity incident, or a failure to protect the Company's computer systems, networks and information and the Company's clients' information against cybersecurity threats, could result in a loss of information, adversely impact the Company's ability to conduct our businesses, and damage the Company's reputation and cause losses. • The Company's business may be materially adversely affected by operational risk. • Failure to satisfy regulatory standards, including "well capitalized" and "well managed" status or capital adequacy and liquidity rules more generally, could result in limitations on the Company's activities and adversely affect its business and financial condition. • The Company is subject to extensive government rulemaking, regulation and supervision. These rules and regulations have, and in the future may, compel the Company to change how it manages its businesses, which could have a material adverse effect on its business, financial condition and results of operations. In addition, these rules and regulations have increased the Company's compliance and operational risk and costs. • The Company's risk management framework may not be effective in mitigating risk and reducing the potential for losses. • A failure or circumvention of the Company's controls and procedures could have a material adverse effect on the Company's business, reputation, results of operations and financial condition. • If the Company's resolution plan is determined not to be credible or not to facilitate an orderly resolution under the U.S. Bankruptcy Code, its business, reputation, results of operations and financial condition could be materially negatively impacted. The application of the Company's Title I preferred resolution strategy or resolution

		under the Title II orderly liquidation authority could adversely affect its liquidity and financial condition and the Company's security holders. • Regulatory or enforcement actions or litigation could materially adversely affect the Company's results of operations or harm the Company's businesses or reputation. • The Company's businesses may be negatively affected by adverse events, publicity, government scrutiny or other reputational harm. • Acts of terrorism, natural disasters, pandemics, global conflicts and other geopolitical events may have a negative impact on the Company's business and operations. • The Company is dependent on fee-based business for a substantial majority of its revenue and the Company's fee-based revenues could be adversely affected by slowing in market activity, weak financial markets, underperformance and/or negative trends in savings rates or in investment preferences. • Weakness and volatility in financial markets and the economy generally may materially adversely affect the Company's business, results of operations and financial condition. • The United Kingdom's referendum decision to leave the EU has had and may continue to have negative effects on global economic conditions, global financial markets, and the Company's business and results of operations. • Changes in interest rates and yield curves could have a material adverse effect on the Company's profitability. • The Company may experience write-downs of securities that it owns and other losses related to volatile and illiquid market conditions, reducing its earnings and impacting the Company's financial condition. • Ongoing concerns about the financial stability of certain countries, new barriers to global trade or a breakup of the EU or Eurozone could have a material adverse effect on the Company's business and results of operations. • The Company's FX revenue may be adversely affected by decreases in market volatility and the cross-border investment activity of the Company's clients. • The failure or perceived weakness of any of the Company's significant counterparties, many of whom are major financial

		institutions and sovereign entities, and the Company's assumption of credit and counterparty risk, could expose the Company to loss and adversely affect the Company's business. • The Company's business, financial condition and results of operations could be adversely affected if it does not effectively manage the Company's liquidity. • Any material reduction in the Company's credit ratings or the credit ratings of the Company's principal bank subsidiaries, The Bank of New York Mellon or BNY Mellon, N.A., could increase the cost of funding and borrowing to the Company and the Company's rated subsidiaries and have a material adverse effect on the Company's results of operations and financial condition and on the value of the securities the Company issues. • The Company could incur losses if the Company's allowance for credit losses, including loan and lending related commitments reserves, is inadequate. • New lines of business, new products and services or transformational or strategic project initiatives may subject the Company to additional risks, and the failure to implement these initiatives could affect the Company's results of operations. • The Company is subject to competition in all aspects of its business, which could negatively affect the Company's ability to maintain or increase the Company's profitability. • The Company's business may be adversely affected if the Company is unable to attract and retain employees. • The Company's strategic transactions present risks and uncertainties and could have an adverse effect on the Company's business, results of operations and financial condition. • Tax law changes, including the recent enactment of the Tax Cuts and Jobs Act of 2017 ("Tax Act"), or challenges to the Company's tax positions with respect to historical transactions may adversely affect the Company's net income, effective tax rate and the Company's overall results of operations and financial condition. • The Company's ability to return capital to shareholders is subject to the discretion of the Company's board of directors and may be limited by U.S. banking laws and regulations, including those governing capital and the approval of the Company's capital plan, applicable provisions of Delaware law or the Company's failure to pay full and timely dividends on the Company's preferred stock.

		• Changes in the method pursuant to which the LIBOR and other benchmark rates are determined could adversely impact the Company's business and results of operations. • The Parent is a non-operating holding company, and as a result, is dependent on dividends from its subsidiaries and extensions of credit from its Intermediary Holding Company ("IHC") to meet its obligations, including with respect to its securities, and to provide funds for share repurchases and payment of dividends to its stockholders. • Changes in accounting standards governing the preparation of the Company's financial statements and future events could have a material impact on the Company's reported financial condition, results of operations, cash flows and other financial data.
D.3	**Key risks related to the Shares**	The risks related to the participation itself in the ESPP, The Bank of New York Mellon Corporation Share Accumulation Plan (the "SAP") and the LTIP, together referred to as the "Plans", and the acquisition of Shares thereunder, can be summarized as follows: • Participation in the Plans is subject to the same risks as inherent to any investment in shares (such as a change of the stock exchange price of the shares) and a participant in the Plans therefore potentially faces the risk of losing a part or all of his invested capital. • Participation in the Plans is subject to a currency risk (e.g., US$/EUR or US$/Sterling pound) that could adversely affect the value derived from the participation in the Plan. • The possible tax and/or social security consequences of the participation in the Plans could adversely affect the value derived from the participation in the Plans. • Under the Plans, there may be certain restrictions with respect to the withdrawal of Shares which may lead to a certain restriction on the liquidity thereof.

SECTION E — OFFER

E.1	**Net proceeds and expenses**	Assuming that all 3,206,610 Shares offered under the ESPP pursuant to this prospectus would be purchased by the employees participating in the ESPP, then the proceeds would, taking into account a Share price on March 2, 2018 of US$ 55.37 and the applicable rules regarding the price paid for Shares under the ESPP, amount to US$ 168,672,495. The

		Company has incurred legal costs of approximately US$ 55,000 to implement this prospectus in order to offer securities under the Plans to eligible employees of its subsidiaries in the European Economic Area.
E.2a	**Reasons for the offer and use of proceeds**	The purpose of the ESPP and SAP is to provide an opportunity for the Company's eligible employees and the eligible employees of the Company's subsidiaries and affiliates to purchase Shares through payroll deductions and thereby have an additional incentive to contribute to the Company's success. The purpose of the LTIP is to promote the growth and profitability of the Company and its affiliates, to provide officers, other employees and non-employee directors of the Company and its affiliates with the incentive to achieve long-term corporate objectives, to attract and retain officers, other employees and non-employee directors of outstanding competence, and to provide such individuals with an opportunity to acquire Shares and cash awards. The proceeds, if any, of the offers under the Plans will be used by the Company for general corporate purposes.

E.3	**Description of the terms and conditions of the offer**	**The below description of the terms and conditions of the offer is only intended to be a very high level summary of those terms and conditions. The reader is strongly encouraged to read the ESPP, SAP and LTIP as attached under Exhibits I, II and III to this prospectus.** <u>ESPP</u> The ESPP is administered by the Company's Human Resources and Compensation Committee (the "<u>HRCC</u>"). The HRCC has the authority and responsibility for the administration of the ESPP and it may delegate to one or more individuals the day-to-day administration of, and other responsibilities relating to, the ESPP. All of the Company's full-time and certain part-time U.S. domestic salaried employees or those of any subsidiary or affiliate on the Offering Date (as defined below) are eligible to participate in the ESPP, unless otherwise determined by the HRCC or its delegate. Certain non-U.S. full-time or part-time salaried employees, as specified by the HRCC or its delegate, may also participate in the ESPP. There will be monthly "<u>Purchase Periods</u>" for the purchase of Shares under the ESPP. The first business day of each Purchase Period is an "<u>Offering Date</u>" and the last business day of each Purchase Period that is also a trading day is a "<u>Purchase Date</u>". An eligible employee may participate in the ESPP during any Purchase Period by filing a payroll deduction authorization form by the enrollment deadline established for the Purchase Period. A participant may authorize a payroll deduction between 1% and 10%, or such other percentage as specified by the HRCC prior to the commencement of a Purchase Period, in whole percentages, of the employee's eligible compensation to be deducted for each pay period ending during the Purchase Period to be applied at the end of the Purchase Period to the purchase of Shares. Under procedures established by the HRCC or its delegate, a participant may discontinue payroll deductions under the ESPP at any time during a Purchase Period. The purchase price of Shares purchased under the ESPP will be 95%, which is referred to as the "<u>Designated Percentage</u>", of the fair market value of the Shares on the Purchase Date. For purposes of the ESPP, the fair market value shall mean the closing price of a Share in the NYSE Composite Transactions on the relevant date, or, if no sale shall have been made on such exchange on that date, the closing price in the NYSE Composite Transactions on the last preceding day on which there was a sale. However, the HRCC may change the Designated Percentage with respect to any future Purchase Period, but not below 85%. On each Purchase Date, subject to certain limitations, a participant automatically purchases that number of full or fractional Shares which the accumulated payroll deductions credited to the participant's account at that time shall purchase at the applicable purchase price (the "<u>Purchase Price</u>"). No purchase rights granted under the ESPP shall be assignable or transferable by a participant other than by will or by the laws of descent and distribution. The ESPP shall continue in effect until the earlier of its termination by the Company's Board of Directors or the date on which all of the Shares available for issuance under the ESPP have been issued.

<table>
<tr><td>E.4</td><td>Description of material interest to the offer including conflict of interests</td><td colspan="3">Not applicable. There are no such interests.</td></tr>
<tr><td>E.5</td><td>Name of the entity offering to sell the security</td><td colspan="3">The Bank of New York Mellon Corporation.</td></tr>
<tr><td rowspan="4">E.6</td><td rowspan="4">Maximum dilution</td><td colspan="3">Assuming that the Shares offered would all be newly issued, the holdings of a shareholder of BNY Mellon currently holding 1% of the total outstanding share capital of BNY Mellon as of January 31, 2018, i.e., 10,097,492 Shares, and who is not an eligible employee participating in the offer, would be diluted as indicated in the following table:</td></tr>
<tr><td></td><td>Percentage of the total outstanding Shares</td><td>Total number of outstanding Shares</td></tr>
<tr><td>Before the issuance of Shares under the ESPP (as of January 31, 2018)</td><td>1.00%</td><td>1,009,749,214</td></tr>
<tr><td>After issuance of 3,206,610 Shares under the ESPP</td><td>0.9968%</td><td>1,012,955,824</td></tr>
<tr><td>E.7</td><td>Estimated expenses charged to the investor by the issuer or offeror</td><td colspan="3">Not applicable. There are no such expenses.</td></tr>
</table>

II. Risk factors

(a) The risk factors to be taken into consideration when participating in the Plans consist, on the one hand, of risks related to the participation of the Plans itself, and, on the other hand, risks related to the Company's business.

The risks related to the participation itself in the Company's Plans can be summarized as follows:

- Participation in the Plans is subject to the same risks as inherent to any investment in shares (such as a change of the stock exchange price of the shares) and a participant in the Plans therefore potentially faces the risk of losing a part or all of his invested capital.
- Participation in the Plans is subject to a currency risk (e.g., US$/EUR or US$/Sterling pound) that could adversely affect the value derived from the participation in the Plans.
- The possible tax and /or social security consequences of the participation in the Plans could adversely affect the value derived from the participation in the Plans.
- Under the Plans, there may be certain restrictions with respect to the withdrawal of Shares which may lead to a certain restriction on the liquidity thereof.

(b) The risks related to the Company's business can be summarized as follows:

- A communications or technology disruption or failure that results in a loss of information or impacts the Company's ability to provide services to the Company's clients may materially adversely affect business, financial condition and results of operations.
- A cybersecurity incident, or a failure to protect the Company's computer systems, networks and information and the Company's clients' information against cybersecurity threats, could result in a loss of information, adversely impact the Company's ability to conduct its businesses, and damage the Company's reputation and cause losses.
- The Company's business may be materially adversely affected by operational risk.
- Failure to satisfy regulatory standards, including "well capitalized" and "well managed" status or capital adequacy and liquidity rules more generally, could result in limitations on the Company's activities and adversely affect its business and financial condition.
- The Company is subject to extensive government rulemaking, regulation and supervision. These rules and regulations have, and in the future may, compel the Company to change how it manages its businesses, which could have a material adverse effect on its business, financial condition and results of operations. In addition, these rules and regulations have increased the Company's compliance and operational risk and costs.
- The Company's risk management framework may not be effective in mitigating risk and reducing the potential for losses.

- A failure or circumvention of the Company's controls and procedures could have a material adverse effect on the Company's business, reputation, results of operations and financial condition.

- If the Company's resolution plan is determined not to be credible or not to facilitate an orderly resolution under the U.S. Bankruptcy Code, its business, reputation, results of operations and financial condition could be materially negatively impacted. The application of the Company's Title I preferred resolution strategy or resolution under the Title II orderly liquidation authority could adversely affect its liquidity and financial condition and the Company's security holders.

- Regulatory or enforcement actions or litigation could materially adversely affect the Company's results of operations or harm the Company's businesses or reputation.

- The Company's businesses may be negatively affected by adverse events, publicity, government scrutiny or other reputational harm.

- Acts of terrorism, natural disasters, pandemics, global conflicts and other geopolitical events may have a negative impact on the Company's business and operations.

- The Company is dependent on fee-based business for a substantial majority of its revenue and the Company's fee-based revenues could be adversely affected by slowing in market activity, weak financial markets, underperformance and/or negative trends in savings rates or in investment preferences.

- Weakness and volatility in financial markets and the economy generally may materially adversely affect the Company's business, results of operations and financial condition.

- The United Kingdom’s referendum decision to leave the EU has had and may continue to have negative effects on global economic conditions, global financial markets, and the Company's business and results of operations.

- Changes in interest rates and yield curves could have a material adverse effect on the Company's profitability.

- The Company may experience write-downs of securities that it owns and other losses related to volatile and illiquid market conditions, reducing its earnings and impacting the Company's financial condition.

- Ongoing concerns about the financial stability of certain countries, new barriers to global trade or a breakup of the EU or Eurozone could have a material adverse effect on the Company's business and results of operations.

- The Company's FX revenue may be adversely affected by decreases in market volatility and the cross-border investment activity of the Company's clients.

- The failure or perceived weakness of any of the Company's significant counterparties, many of whom are major financial institutions and sovereign entities, and the Company's assumption of credit and counterparty risk, could expose the Company to loss and adversely affect the Company's business.

- The Company's business, financial condition and results of operations could be adversely affected if it does not effectively manage the Company's liquidity.

- Any material reduction in the Company's credit ratings or the credit ratings of the Company's principal bank subsidiaries, The Bank of New York Mellon or BNY Mellon, N.A., could increase the cost of funding and borrowing to the Company and the Company's rated subsidiaries and have a material adverse effect on the Company's results of operations and financial condition and on the value of the securities the Company issues.

- The Company could incur losses if the Company's allowance for credit losses, including loan and lending related commitments reserves, is inadequate.

- New lines of business, new products and services or transformational or strategic project initiatives may subject the Company to additional risks, and the failure to implement these initiatives could affect the Company's results of operations.

- The Company is subject to competition in all aspects of its business, which could negatively affect the Company's ability to maintain or increase the Company's profitability.

- The Company's business may be adversely affected if the Company is unable to attract and retain employees.

- The Company's strategic transactions present risks and uncertainties and could have an adverse effect on the Company's business, results of operations and financial condition.

- Tax law changes, including the recent enactment of the Tax Act, or challenges to the Company's tax positions with respect to historical transactions may adversely affect the Company's net income, effective tax rate and the Company's overall results of operations and financial condition.

- The Company’s ability to return capital to shareholders is subject to the discretion of the Company's board of directors and may be limited by U.S. banking laws and regulations, including those governing capital and the approval of the Company's capital plan, applicable provisions of Delaware law or the Company's failure to pay full and timely dividends on the Company's preferred stock.

- Changes in the method pursuant to which the LIBOR and other benchmark rates are determined could adversely impact the Company's business and results of operations.

- The Parent is a non-operating holding company, and as a result, is dependent on dividends from its subsidiaries and extensions of credit from its IHC to meet its obligations, including with respect to its securities, and to provide funds for share repurchases and payment of dividends to its stockholders.

- Changes in accounting standards governing the preparation of the Company's financial statements and future events could have a material impact on the Company's reported financial condition, results of operations, cash flows and other financial data.

III. Information on the offer and dilution resulting therefrom

A. Information concerning the offer

A.1. Description of the offer

General information

BNY Mellon, a Delaware corporation, with its principle executive offices at 225 Liberty Street, New York, New York 10286, United States of America, is providing eligible employees (and, in the case of awards under the LTIP, former employees if the award is granted within 12 months of termination of employment and with respect to the final year of service) of its (direct or indirect) subsidiaries in Europe the opportunity to acquire Shares under the following equity incentive plans :

- the ESPP;
- the SAP; and
- the LTIP.

The Shares of BNY Mellon, having a par value of US$ 0.01 per share, offered pursuant to this prospectus can be either authorized but unissued Shares or treasury Shares, and are or will be, after their issuance, listed on the NYSE. The Shares are listed on the NYSE under the ticker symbol "BK". The ISIN Code of the Company's Shares is US0640581007. The currency applicable to the securities is the USD.

Once the Shares are issued an employee participating in the offer will have the rights of a typical shareholder, including dividend and voting rights. Subject to approval of the Board of Directors of BNY Mellon, dividends are typically paid on BNY Mellon's common stock quarterly in February, May, August and November. The Shares are subject to any US and/or Delaware law rules regarding mandatory takeover bids, squeeze-outs and sell-outs.

Employees eligible to participate in the offer are also subject to BNY Mellon's Personal Securities Trading Policy (Exhibit VI), a copy of which they have received. Additional copies can be obtained through the Company's intranet site.

In addition, during identified restricted periods, a limited group of employees may not engage in transactions in Company stock or may not be permitted to change their contributions to the ESPP. The employees concerned will receive separate communications by e-mail if these restrictions apply to them.

Finally, certain employees identified as material risk takers may be subject to additional holding periods after they vest in their restricted stock units or other awards received under the LTIP.

The main features of the ESPP, the SAP, and the LTIP are described hereafter. The following description is only a summary. The awards are consequently subject to the actual terms and conditions of the ESPP, the SAP, and the LTIP, the full text of which is enclosed in Exhibits I, II, and III respectively.

ESPP

Background and Purpose

The ESPP was adopted by the Company's Board of Directors on March 11, 2008 and was approved by the Company's shareholders on April 8, 2008. The purpose of the ESPP is to provide an opportunity for the Company's eligible employees and the eligible employees of the Company's subsidiaries and affiliates to purchase Shares through payroll deductions and thereby have an additional incentive to contribute to the Company's success. The aggregate number of Shares that may be issued and sold under the ESPP is 7,500,000 Shares, subject to proportionate adjustment in the event of stock splits and similar events.

Administration

The ESPP is administered by the HRCC. The HRCC has the authority and responsibility for the administration of the ESPP and it may delegate to one or more individuals the day-to-day administration of, and other responsibilities relating to, the ESPP. Fidelity Stock Plan Services LLC ("Fidelity") (successor to ComputerShare) is currently the stock plan administrator for the ESPP. The HRCC or its delegate has full power and authority to promulgate any rules and regulations that it deems necessary for the proper administration of the ESPP, to interpret the provisions and supervise the administration of the ESPP, to establish required ownership levels for subsidiaries and affiliates, to identify eligible employees or the parameters by which they shall be identified, to make factual determinations relevant to ESPP entitlements and to take all necessary or advisable actions in connection with administration of the ESPP.

Eligibility of Employees

All of the Company's full-time and certain part-time U.S. domestic salaried employees or those of any subsidiary or affiliate on the Offering Date (as defined below) are eligible to participate in the ESPP, unless otherwise determined by the HRCC or its delegate. Certain non-U.S. full-time or part-time salaried employees, as specified by the HRCC or its delegate, may also participate in the ESPP.

Purchase Periods and Payroll Deductions

There will be monthly "Purchase Periods" for the purchase of Shares under the ESPP. The first business day of each Purchase Period is an "Offering Date" and the last business day of each Purchase Period that is also a trading day is a "Purchase Date". The first Purchase Period for the eligible employees in Belgium, Ireland, Luxembourg, the Netherlands and the United Kingdom began on May 1, 2009 and ended on May 31, 2009. Subsequent Purchase Periods run consecutively following the expiration of the preceding Purchase Period. The HRCC or its delegate has the power to change the commencement date or duration of the Purchase Periods.

An eligible employee may participate in the ESPP during any Purchase Period by filing a payroll deduction authorization form by the enrollment deadline established for the Purchase Period. A participant may authorize a payroll deduction between 1% and 10%, or such other percentage as specified by the HRCC prior to the commencement of a Purchase Period, in whole percentages, of the employee's eligible compensation (base rate of cash remuneration, determined prior to any contractual reductions and excluding bonuses, overtime pay, severance, all other forms of special pay or compensation or amounts received from deferred compensation plans) to be deducted for each pay period ending during the Purchase Period and credited to a bookkeeping account (or, if required under applicable law, a dedicated bank account established in the name of all local participants) to be applied at the end of the Purchase Period to the purchase of Shares. In Belgium, a dedicated bank account is opened with The Bank of New York Mellon SA/NV, with registered office at Rue Montoyerstraat 46, B-1000 Brussels. No interest will be credited on payroll deductions, except when required by local law or as determined by the HRCC or its delegate.

Under procedures established by the HRCC or its delegate, a participant may discontinue payroll deductions under the ESPP at any time during a Purchase Period. If a participant discontinues participation during a Purchase Period, his or her accumulated payroll deductions will remain in the ESPP for the purchase of Shares at the end of the Purchase Period, and as soon as administratively practicable no further payroll deductions will be made from his or her pay during such Purchase Period or future Purchase Periods. A participant's withdrawal will not have any effect upon his or her eligibility to elect to participate in any succeeding Purchase Period.

Purchase of Common Stock

The purchase price of Shares purchased under the ESPP will be 95%, which is referred to as the "Designated Percentage", of the fair market value of the Shares on the Purchase Date. For purposes of the ESPP, the fair market value shall mean the closing price of a Share in the NYSE Composite Transactions on the relevant date, or, if no sale shall have been made on such exchange on that date, the closing price in the NYSE Composite Transactions on the last preceding day on which there was a sale. However, the HRCC may change the Designated Percentage with respect to any future Purchase Period, but not below 85%.

On each Purchase Date, subject to certain limitations, a participant automatically purchases that number of full or fractional Shares which the accumulated payroll deductions credited to the participant's account at that time shall purchase at the applicable Purchase Price. Unless and until otherwise determined by the HRCC or its delegate, all Shares purchased under the ESPP shall be deposited, in book-entry form or otherwise, directly to an account established in the name of the participant. On a quarterly basis, the Company will deliver to the participant a record of the Shares purchased. Rights to purchase, which are granted to participants, may not be voluntarily or involuntarily assigned, transferred, pledged, or otherwise disposed of in any way, and during the participant's lifetime may be exercised only by the participant.

The maximum number of Shares which may be purchased for any employee for any Purchase Period is limited to US$ 25,000 divided by the fair market value of a Share as of the last day of the Purchase Period, reduced by the number of Shares purchased by an employee during any previous Purchase Periods ending in the same calendar year.

Dividends

If the Company's Board of Directors declares a dividend, the participants will be entitled to dividends on Shares held in their ESPP account. Any dividends on Shares so held in the ESPP account on the record date for the dividend (less any taxes required to be withheld) will be used automatically to purchase more Shares on the participant's behalf (unless otherwise prohibited under local law). These Shares are currently purchased by Fidelity on the open market and credited to the participant's book entry account based on the average price paid. The 5% discount does not apply to Shares purchased with dividends.

Termination of Employment

Participation in the ESPP will discontinue as of the date of termination of employment of a participating employee, whether by death, retirement, disability or otherwise unless otherwise prohibited under local law. In the event of a participating employee's termination of employment prior to the expiration of a Purchase Period, all amounts credited to the participant's stock purchase account will remain in the ESPP for purchase of Shares at the end of the Purchase Period.

BNY Mellon's Personal Securities Trading Policy - Restricted Periods

Employees eligible to participate in the ESPP are also subject to BNY Mellon's Personal Securities Trading Policy (Exhibit VI), a copy of which they have received. Additional copies can be obtained through the Company's intranet site.

In addition, during identified restricted periods, a limited group of employees may not engage in transactions in Company stock or may not be permitted to change their contributions to the ESPP. The employees concerned will receive separate communications by e-mail if these restrictions apply to them.

Stock split – stock dividend – combination or recapitalization of stock

If a stock split, stock dividend, combination or recapitalization of the stock occurs during a purchase period, appropriate adjustments will be made in the formula for determining the purchase price and the number of Shares to be purchased. The HRCC or the Board of Directors also may adjust the number or kind of Shares to be purchased or the purchase price to reflect any reorganization, recapitalization, spin-off, split-up, rights offering or reduction of the outstanding Shares. In the event of an asset sale, merger or consolidation involving the Company, the Board of Directors may advance the purchase date of the then current purchase period to precede consummation of the transaction or may provide for the purchase on the regular purchase date of securities of the successor corporation.

Amendment and Termination

The Company's Board of Directors may amend or terminate the ESPP at any time, provided that without stockholder approval no amendment may (a) increase the total number of Shares that may be issued and sold under the ESPP, other than for adjustments provided for in the ESPP, or (b) otherwise be made if shareholder approval is required by the rules of any stock exchange on which the Share is listed. The HRCC may suspend the ESPP at any time.

If on the last day of a Purchase Period the number of Shares purchasable by employees is greater than the number of Shares remaining available under the ESPP, the HRCC will allocate the available Shares among the participating employees in such manner as it deems equitable.

Shareholder's rights

A participant shall have no rights as a shareholder by virtue of his or her participation in the ESPP until the date of the issuance of the Shares purchased pursuant to the exercise of the Participant's purchase rights under the ESPP (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company).

Transferability

No purchase rights granted under the ESPP shall be assignable or transferable by a participant other than by will or by the laws of descent and distribution.

Term of the ESPP

The ESPP shall continue in effect until the earlier of its termination by the Company's Board of Directors or the date on which all of the Shares available for issuance under the ESPP have been issued.

SAP

Background

The SAP was adopted by the HRCC of the Company's Board of Directors on October 13, 2008 as a sub-plan of the ESPP.

The SAP is a tax preferential employee share plan operated solely in the United Kingdom, pursuant to which employees of participating companies are able to acquire Shares in the Company. The Company has registered the SAP with the HM Revenue & Customs and self-certified that all applicable requirements have been met. All Shares acquired by participating employees will be held in the Trust administered by the Trustees. Provided that certain conditions are met, the Shares acquired under the SAP will benefit from favourable income tax and NICs treatment in the United Kingdom.

Offer of Partnership Shares

All eligible employees of participating companies who are U.K. resident taxpayers and who have been employed by a participating company at all times during any qualifying period will be eligible to acquire Shares under the SAP.

The Company will invite eligible employees to purchase Shares (the "Partnership Shares") worth up to £1,800 per tax year (or 10% of their annual pre-tax salary, if lower) through payroll deductions from their pre-tax earnings, subject to a minimum contribution of £10 per month. A participating employee is entitled to stop (or re-start) the deductions or withdraw from the SAP at any time by giving notice in writing.

All amounts deducted from the salaries of participating employees will be delivered by the participating company to the Trustees who will use the contributions to purchase Shares on the NYSE. The contributions will be accumulated either in a one month period once a year or over 12 monthly periods each year prior to being used to purchase the Partnership Shares (the "Accumulation Period").

The price paid for each Partnership Share will be determined by reference to the market value of the Company's Shares on the date of acquisition. For purposes of the SAP, the market value shall mean, as long as the Shares are listed on the NYSE, (i) if all Shares are acquired for allocation to participants by the Trustees within a certain timeframe, as further defined in the SAP, the average of the prices paid by the Trustees for those Shares; or (ii) in any other case, the closing price of a Share on the NYSE on the last day the London Stock Exchange is open for trade prior to the acquisition date or award date, as further determined in the SAP. As the price of the Shares is quoted in US dollars, the contributions will be converted into US dollars at the prevailing exchange rate at the time of purchase.

Participating employees can withdraw their Partnership Shares from the Trust at any time. In the event that income tax or NICs are payable, the Trustees will sell all or a portion of the Partnership Shares to cover such liabilities, unless the participating employee provides them with sufficient funds to pay the tax liability in advance. Generally, the Partnership Shares must be held in the Trust for at least three years in order for the participating employee to benefit from favourable tax and NICs treatment. Generally, the Partnership Shares must be held in the Trust for at least five years in order for the participating employee to be able to withdraw them free of income tax and NICs liability.

Where the employment of a participating employee is terminated, the individual will be entitled to retain any Partnership Shares which he or she has acquired. However, the individual will generally be liable to pay income tax and NICs on the transfer of the Partnership Shares out of the Trust if these Shares have not been held in the Trust for at least five years. If the participating employee ceases to be employed during an Accumulation Period, any money held by the Trustee but not yet used to purchase Partnership Shares will be refunded to the individual (subject to the deduction of income tax and NICs).

Other Types of Shares which may be Offered

The Company may, in its absolute discretion, also offer other types of awards to participating employees under the SAP. A description of these other award types follows.

(i) Free Shares

The Company may choose to award Free Shares worth up to £3,600 per tax year at no cost to eligible employees, which may be subject to the satisfaction of performance criteria. If performance criteria are used, they will apply to all eligible employees.

Free Shares cannot be withdrawn from the Trust prior to the end of a holding period of three years and will be forfeited by an employee attempting to do so. Generally, if the Free Shares are withdrawn once the holding period has expired but less than five years after acquisition, income tax and NICs will be payable, albeit on a favourable basis. To satisfy the tax and NICs liability, the Trustees will sell all or a portion of the Free Shares, unless the participating employee provides them in advance with sufficient funds to pay the tax liability. No tax or NICs liability will arise on the withdrawal of the Free Shares from the Trust by the participating employees if the Free Shares are held in the Trust for at least five years.

(ii) Matching Shares

Upon a participating employee entering into an agreement to acquire Partnership Shares, the Company can agree to award "Matching Shares" worth up to £3,600 per tax year to the participating employee at no cost, determined as a maximum ratio of 2:1 to the number of Partnership Shares which the participating employee acquires. The Company has the discretionary right to vary this ratio on each occasion that the Company agrees to award "Matching Shares".

Matching Shares cannot be withdrawn from the Trust prior to the end of the holding period of three years and will be forfeited by an employee attempting to do so. Generally, if the Matching Shares are withdrawn once the holding period has expired, but less than five years after acquisition, income tax and NICs will be payable, albeit on a favourable basis. To satisfy the tax and NICs liability, the Trustees will sell all or a portion of the Matching Shares, unless the participating employee provides them in advance with sufficient funds to pay the tax liability. No tax or NICs liability will arise on the withdrawal of the shares from the Trust by the participating employees if the Matching Shares are held in the Trust for at least five years.

(iii) Dividend Shares

The Company may choose to offer "Dividend Shares" under which dividends on Shares can be reinvested each year to acquire further Shares under the SAP. There was previously a limit of £1,500 per year on dividends that could be reinvested, but this limitation was removed in 2013.

Dividend Shares cannot be withdrawn from the Trust prior to the end of the holding period of three years. If the Dividend Shares are withdrawn once the holding period has expired, but less than five years after acquisition, income tax will be payable.

LTIP

Background and Purpose

On March 11, 2008, the Company's Board of Directors approved the LTIP and the Company's shareholders approved the LTIP on April 8, 2008. The LTIP was subsequently amended and restated on February 25, 2011, and the Company's stockholders approved this amendment and restatement at its annual shareholders meeting on April 12, 2011, and was again amended and restated on February 24, 2014, and the Company's stockholders approved this amendment and restatement at its annual shareholders meeting on April 8, 2014. The purposes of the LTIP are to promote the growth and profitability of the Company and its affiliates, to provide officers, other employees and non-employee directors of the Company and its affiliates with the incentive to achieve long-term corporate objectives, to attract and retain officers, other employees and non-employee directors of outstanding competence, and to provide such individuals with an opportunity to acquire Shares.

The aggregate number of Shares which may be issued under the LTIP (subject to the counting, substitution and adjustment provisions of the LTIP) following the amendment and restatement of the Plan on April 8, 2014 was 48,395,574 (18,395,574 as of February 24, 2014 plus 30,000,000 additional shares following shareholder approval of the amendment and restatement). Of that total, the maximum aggregate number of Shares which may be issued in connection with awards pursuant to which a participant is not required to pay the fair market value for the Shares represented thereby, measured as of the grant date, is as calculated in Section 2.4 of the LTIP. For purposes of the LTIP, the fair market value shall mean the closing price of a Share in the NYSE Composite Transaction on the relevant date, or, if no sale shall have been made on such exchange on that date, the closing price in the NYSE Composite Transaction on the last preceding day on which there was a sale. No awards may be granted under the LTIP subsequent to February 24, 2024.

Eligibility of Employees

Employees of the Company and the Company's affiliates (or former employees, if the award is granted within 12 months of termination of employment and with respect to the final year of service), along with the Company's non-employee directors, are eligible to receive awards under the LTIP.

Administration

Except in the case of awards to non-employee directors, the LTIP will be administered by the HRCC. Fidelity is currently the stock plan administrator. In the case of awards to non-employee directors, the LTIP will be administered by the Company's (or its delegate) Board of Directors in its entirety.

The HRCC or its delegates has full authority, in their discretion, to interpret the LTIP and to determine the persons who will receive awards and the number of Shares to be covered by each award. In determining the eligibility of any participant, as well as in determining the number of Shares to be covered by an award and the type of awards to be made to such individuals, the HRCC will consider the position and responsibilities of the person being considered, the nature and value of the person's services, the person's present and/or potential contribution to the Company's success and such other factors as the HRCC may deem relevant.

The types of awards which the HRCC has authority to grant are stock options, stock appreciation rights, restricted stock, restricted stock units, performance share units, deferred stock units and other stock-based awards and cash awards. Employees are eligible to receive all types of awards under the LTIP. Non-employee directors are eligible to receive awards under the LTIP other than "incentive stock options". In the discretion of the HRCC, Shares, or other types of awards authorized under the LTIP, may be used in connection with, or to satisfy the Company's obligations or the obligations of any of the Company's subsidiaries under, other compensation or incentive plans, programs or arrangements of the Company or any of the Company's subsidiaries for eligible participants.

Restricted Stock Units

Restricted stock units awarded by the HRCC will be subject to such restrictions (which may include restrictions on the right to transfer or encumber the units while subject to restriction) as the HRCC may impose and will be subject to forfeiture in whole or in part if certain events (which may, in the discretion of the HRCC, include termination of employment and/or performance-based events) specified by the HRCC occur prior to the lapse of the restrictions. The restricted stock unit agreement between the Company and the awardee will set forth the number of restricted stock units awarded to the awardee, the restrictions imposed thereon, the duration of such restrictions, the events the occurrence of which would cause a forfeiture of the restricted stock units in whole or in part and such other terms and conditions as the HRCC in its discretion deems appropriate.

In the case of awards to employees, the restriction period applicable to restricted stock units will be not less than three years in the case of a time-based restriction, with no more frequent than ratable vesting over such period or, in the case of a performance-based restriction, one year, except that up to the sum of (i) the number of Shares not subject to the minimum vesting period immediately prior to stockholder approval of the amendment and restatement of the LTIP (as of February 24, 2014, 4,212,779 such Shares were available, subject to the counting, adjustment and substitution provisions of the LTIP) and (ii) ten percent (10%) of those additional Shares available for awards of restricted stock units and other awards pursuant to which participants are not required to pay the fair market value, applicable following stockholder approval of the amendment and restatement of the LTIP as provided in Section 2.4 of the LTIP, may be granted as restricted stock units with no minimum vesting period. Restricted stock units may include the right to receive dividend equivalents. During the two and one-half months following the end of the year in which vesting occurs, the awardee shall be paid the number of Shares equal to the number of restricted stock units vested. In its discretion, the HRCC may determine that the Company's obligation shall be paid in cash equal to the number of restricted stock units vested multiplied by the fair market value of a Share on such date, or part in Shares and part in cash.

Other Stock-Based Awards and Cash Awards

The HRCC is authorized, subject to limitations under applicable law, to grant such other awards that are denominated or payable in, valued in whole or in part by reference to, or otherwise based on, or related to, the Company's Shares, as deemed by the HRCC to be consistent with the purposes of the LTIP, including, without limitation, purchase rights, Shares awarded without restrictions or conditions, convertible securities, exchangeable securities or other rights convertible or exchangeable into Shares, as the HRCC in its discretion may determine. Other stock-based awards, excepting purchase rights, may include the right to receive dividends or dividend equivalents, as applicable. In addition, the HRCC is authorized, subject to limitations under applicable law, to grant cash awards under the LTIP.

The HRCC shall determine the terms and conditions of other stock-based awards, subject to the same three-year and one-year minimum vesting requirements applicable to restricted stock units, as applicable; provided, such minimum vesting provisions do not apply to certain awards made to participants as annual incentive compensation as described in the LTIP. Any Shares or securities delivered pursuant to a purchase right granted under the LTIP shall be purchased for such consideration, paid for by such methods and in such forms, including, without limitation, cash, Shares, or other property or any combination thereof, as the HRCC shall determine. However, the value of such consideration shall not be less than the fair market value of such Shares or other securities on the date of grant of the purchase right.

Additional Rights in Certain Events

The LTIP provides for certain additional rights upon the occurrence of a change in control, as defined in the LTIP or the award agreement, unless the agreement between the Company and the awardee otherwise provides. Unless otherwise provided in the award agreement, such an event will be as defined in the LTIP.

Unless the agreement between the Company and the awardee otherwise provides, in the event the employment of a participant is terminated by the Company or any of the Company's affiliates without cause within two years following a change in control, all restrictions applicable to stock options, stock appreciation rights, restricted stock and restricted stock units, deferred stock units and other stock-based awards under the LTIP will lapse and such awards will fully vest on its normal vesting schedule. Unless the agreement between the Company and the awardee provides otherwise, upon the occurrence of any change in control, all performance criteria and other conditions to payment of performance share units and other awards under which payments are subject to performance conditions shall be deemed to be achieved or fulfilled on a pro rata basis for the number of whole months elapsed from the commencement of the performance period through the date of the change in control at the actual performance level achieved or, if not determinable, in the manner specified by the HRCC.

Possible Anti-Takeover Effect

The provisions of the LTIP providing for the possible acceleration of the exercise date of stock options, the lapse of restrictions applicable to restricted stock, restricted stock units, deferred stock units and other stock-based awards following the occurrence of a change in control, and the deemed achievement of performance goals on a pro rata basis based upon actual performance following a change in control may be considered as having an anti-takeover effect.

Miscellaneous

The maximum aggregate number of Shares which shall be available for the grant of stock options and stock appreciation rights to any one individual under the LTIP during any calendar year shall be limited to 4,000,000. The Company's Board of Directors may amend or terminate the LTIP at any time, except that the Board of Directors may not terminate any outstanding award and except that no amendment may be made without the approval of the Company's stockholders if (i) the effect of the amendment is to make any changes in the class of employees eligible to receive incentive stock options or increase the number of Shares subject to the LTIP or for which incentive stock options may be granted under the LTIP or (ii) stockholder approval of the amendment is required by the rules of any stock exchange on which the Shares may then be listed or for stock options, stock appreciation rights, performance share units, cash awards and other awards granted under the LTIP to qualify as "performance based compensation" as then defined in the regulations under Section 162(m) of the Code (as in effect prior to its amendment by the Tax Cuts and Jobs Act, P.L. 115-97). Unless approved by stockholders, repricing of stock options, stock appreciation rights and other purchase rights is not permitted and the purchase price of any such award may not be reduced after grant except to reflect stock splits and similar events. This prohibition applies to direct and indirect repricing, whether through amendment, cancellation, or replacement in exchange for another award or cash payment.

A.2 Use of proceeds

The proceeds, if any, of the offers under the Plans will be used by the Company for general corporate purposes.

A.3 Costs related to the sale of Shares

If a participant seeks to sell Shares acquired under the ESPP, he/she will be charged a transaction fee of US$ 19.95 per transaction (except for a rep assisted trade, where the trading fee will amount to US$ 32.95), plus a trading fee of US$ 0.025 per Share sold, plus a fee payable to the U.S. Securities and Exchange Commission ("SEC") equal to US$ 21.80 per million dollars (as of trade date February 28, 2018, this fee payable to the SEC will amount to US$ 0.0000218 per dollar of gross proceeds, rounded up to the next cent). In addition to the above, a domestic wire fee of US$ 15, an international wire fee of US$ 10 and an international check fee of US$ 5 may be due.

If a participant seeks to sell Shares acquired under the LTIP, he/she will be charged a transaction fee of US$ 19.95 per transaction (except for a rep assisted trade, where the trading fee will amount to US$ 32.95), plus a trading fee of US$ 0.025 per Share sold, plus a fee payable to the SEC equal to US$ 21.80 per million dollars (as of trade date February 28, 2018, this fee payable to the SEC will amount to US$ 0.0000218 per dollar of gross proceeds, rounded up to the next cent). In addition to the above, a domestic wire fee of US$ 15, an international wire fee of US$ 10 and an international check fee of US$ 5 may be due.

Please note that Fidelity and the Company reserve the right to change the fees at any time.

More information on real-time trading and limit orders can be obtained by contacting Fidelity at 800-544-9354.

If a participant seeks to sell shares acquired under the SAP, a flat fee of Sterling £20.00 will be charged (per transaction). If shares are sold using the monthly bulk trading facility, there are no administration and commission charges payable. A transfer of shares from the SAP to another broker would incur the administration fees of £33.07 (without commission). For a basic sale of shares, the SAP administrator, Link Asset Services, charges an administration fee of £33.07 plus commission of 0.55% of the trade value, with a minimum commission charge of the GBP equivalent of US$ 56.

Information concerning the offer, including offer statistics, the method and expected timetable and admission to trading details, is set forth in The Bank of New York Mellon Corporation Employee Stock Purchase Plan (Exhibit I), The Bank of New York Mellon Corporation Share Accumulation Plan (Exhibit II), The Bank of New York Mellon Corporation Long-Term Incentive Plan (Exhibit III), and in the Company's Annual Report (Exhibit IV).

B. Maximum Dilution

The Shares under the ESPP are offered to approximately 7,110 eligible employees of certain EEA subsidiaries of the Company as of December 2017. Further, employees who elect to participate in the ESPP may contribute 1% to 10% of their eligible compensation towards the purchase of Shares, with the maximum number of Shares that can be acquired during any offering period equal to the number of Shares determined by dividing US$ 25,000 by the fair market value of a Share on the applicable offering date, reduced by the aggregate purchase price of any Shares purchased during any offering period(s) which occurred during the same calendar year.

The fair market value of the Shares on March 2, 2018 was US$55.37. Assuming eligible EEA employees would purchase during each Purchase Period one-twelfth of the total number of Shares they were entitled to purchase during a calendar year at the purchase price applicable on March 2, 2018 (i.e., US$ 55.37), each such eligible employee would be entitled to purchase a maximum of 451 Shares under the ESPP assuming no other ESPP limitations are exceeded. Assuming that all of the eligible EEA employees would each purchase 451 Shares in the offer, the maximum number of Shares offered under the ESPP pursuant to this prospectus amounts to approximately 3,206,610 Shares.

Based on the above assumptions, the holdings of a stockholder of the Company currently holding 1% of the total outstanding share capital of the Company as of January 31, 2018 (i.e., 10,097,492 Shares), and who is not an employee participating in the offer, would be diluted as indicated in the following table:

	Percentage of the total outstanding shares	Total number of outstanding shares
Before the offering	1.00%	1,009,749,214
After issuance of 3,206,610 Shares under the ESPP	0.9968%	1,012,955,824

IV. Key information on the Company's financial condition, capitalization and indebtedness, working capital and risk factors

A. Statutory auditors

The statutory auditors of the Company over the fiscal years ended on December 31, 2015, ended on December 31, 2016 and ended on December 31, 2017 were KPMG LLP, 500 Grant Street, Suite 2500, Pittsburgh, PA 15219, U.S.A. The accounts for such years, prepared in accordance with the U.S. GAAP, were audited, and the audit reports contained no qualification.

B. Share capital

As of June 30, 2017, the aggregate market value of the Company's Common Stock, held by non affiliates of the Company was $52,653,801,981.

As of January 31, 2018, 1,009,749,214 shares of the Company's Common Stock were outstanding.

There are no shareholders in the Company that, directly or indirectly, singly or jointly, exercise or are capable of exercising control over the Company.

Based on filings made under Section 13(d) and 13(g) of the Exchange Act reporting ownership of Shares and percent of class as of December 31, 2017, as of February 9, 2018, the only persons known by the Company to be beneficial owners of more than 5% of its common stock were as follows:

Name and Address of Beneficial Owner	Shares of Common Stock Beneficially Owned	Percent of Class
The Vanguard Group(1) 100 Vanguard Blvd. Malvern, PA 19355	68,324,688	6.67%
Warren E. Buffett and Berkshire Hathaway Inc.(2) 3555 Farnam Street Omaha, NE 68131	60,818,783	5.9%
BlackRock, Inc.(3) 55 East 52nd Street New York, NY 10055	58,721,542	5.7%

(1) Based on a review of the Schedule 13G filed on February 12, 2018 by The Vanguard Group. The Schedule 13G discloses that The Vanguard Group had sole voting power as to 1,431,137 shares, shared voting power as to 225,167 shares, sole dispositive power as to 66,698,465 shares and shared dispositive power as to 1,626,223 shares.

(2) Based on a review of the Schedule 13G filed on February 14, 2018 by Warren E. Buffett, Berkshire Hathaway Inc. and certain other reporting persons of which none beneficially owns more than 5% of the Company's common stock. The Schedule 13G discloses that Mr. Buffett had shared voting power as to 60,818,783 shares and shared dispositive power as to 60,818,783 shares, and Berkshire Hathaway Inc. had shared voting power as to 60,818,783 shares and shared dispositive power as to 60,818,783 shares.

(3) Based on a review of the Schedule 13G filed on January 29, 2018 by BlackRock, Inc. The Schedule 13G discloses that BlackRock, Inc. had sole voting power as to 50,221,232 shares and sole dispositive power as to 58,721,542 shares.

For the fiscal year ended on December 31, 2017, no third parties have attempted a public takeover bid on the Company, by purchase or exchange of Shares of the Company.

C. Key financial data

The key financial data (in U.S. GAAP) of the Company as reported in the Company's Annual Report filed on February 28, 2018 (Exhibit IV) are set forth hereafter.

Consolidated Income Statement

See accompanying Notes to Consolidated Financial Statements which can be found in Exhibit IV, the Company's Annual Report.

Consolidated Income Statement

	Year ended Dec. 31,		
(in millions)	**2017**	2016	2015
Fee and other revenue			
Investment services fees:			
Asset servicing	**$ 4,383**	$ 4,244	$ 4,187
Clearing services	**1,553**	1,404	1,375
Issuer services	**977**	1,026	978
Treasury services	**557**	547	555
Total investment services fees	**7,470**	7,221	7,095
Investment management and performance fees	**3,584**	3,350	3,438
Foreign exchange and other trading revenue	**668**	701	768
Financing-related fees	**216**	219	220
Distribution and servicing	**160**	166	162
Investment and other income	**64**	341	316
Total fee revenue	**12,162**	11,998	11,999
Net securities gains — including other-than-temporary impairment	**6**	79	82
Noncredit-related portion of other-than-temporary impairment (recognized in other comprehensive income)	**3**	4	(1)
Net securities gains	**3**	75	83
Total fee and other revenue	**12,165**	12,073	12,082
Operations of consolidated investment management funds			
Investment income	**74**	35	115
Interest of investment management fund note holders	**4**	9	29
Income from consolidated investment management funds	**70**	26	86

Net interest revenue			
Interest revenue	**4,382**	3,575	3,326
Interest expense	**1,074**	437	300
Net interest revenue	**3,308**	3,138	3,026
Total revenue	**15,543**	15,237	15,194
Provision for credit losses	**(24)**	(11)	160
Noninterest expense			
Staff	**5,972**	5,733	5,837
Professional, legal and other purchased services	**1,274**	1,185	1,230
Software	**744**	647	627
Net occupancy	**569**	590	600
Distribution and servicing	**419**	405	381
Sub-custodian	**250**	245	270
Furniture and equipment	**241**	247	280
Business development	**229**	245	267
Bank assessment charges	**220**	219	157
Other	**724**	721	804
Amortization of intangible assets	**209**	237	261
Merger and integration, litigation and restructuring charges	**106**	49	85
Total noninterest expense	**10,957**	10,523	10,799
Income			
Income before income taxes	**4,610**	4,725	4,235
Provision for income taxes	**496**	1,177	1,013
Net income	**4,114**	3,548	3,222
Net (income) attributable to noncontrolling interests (includes $(33), $(10) and $(68) related to consolidated investment management funds, respectively)	**(24)**	(1)	(64)
Net income applicable to shareholders of The Bank of New York Mellon Corporation	**4,090**	3,547	3,158
Preferred stock dividends	**(175)**	(122)	(105)
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	**$ 3,915**	$ 3,425	$ 3,053

Net income applicable to common shareholders of The Bank of New York Mellon Corporation used for the earnings per share calculation

	Year ended Dec. 31,		
(in millions)	**2017**	2016	2015
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	**$ 3,915**	$ 3,425	$ 3,053
Less: Earnings allocated to participating securities *(a)*	**43**	52	43
Net income applicable to common shareholders of The Bank of New York Mellon Corporation after required adjustment for the calculation of basic and diluted earnings per common share	**$ 3,872**	$ 3,373	$ 3,010

Average common shares and equivalents outstanding of The Bank of New York Mellon Corporation *(a)*

	Year ended Dec. 31,		
(in thousands)	**2017**	2016	2015
Basic	**1,034,281**	1,066,286	1,104,719
Common stock equivalents	**13,030**	15,672	17,290
Less: Participating securities	**(7,021)**	(9,945)	(9,498)
Diluted	**1,040,290**	1,072,013	1,112,511
Anti-dilutive securities *(b)*	**12,383**	31,695	28,736

Earnings per share applicable to common shareholders of The Bank of New York Mellon Corporation *(c)*

	Year ended Dec. 31,		
(in dollars)	**2017**	2016	2015
Basic	**$ 3.74**	$ 3.16	$ 2.73
Diluted	**$ 3.72**	$ 3.15	$ 2.71

(a) Beginning in the third quarter of 2017, vested stock awards to retirement eligible employees are included in common shares outstanding for earnings per share purposes. This change resulted in a de minimis increase to both average basic and average diluted shares outstanding.

(b) Represents stock options, restricted stock, restricted stock units and participating securities outstanding but not included in the computation of diluted average common shares because their effect would be anti-dilutive.

(c) Basic and diluted earnings per share under the two-class method are determined on the net income applicable to common shareholders of The Bank of New York Mellon Corporation reported on the income statement less earnings allocated to participating securities.

Consolidated Comprehensive Income Statement

	Year ended Dec. 31,		
(in millions)	**2017**	2016	2015
Net income	**$ 4,114**	$ 3,548	$ 3,222
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments	**853**	(850)	(599)
Unrealized gain (loss) on assets available-for-sale:			
Unrealized gain (loss) arising during the period	**153**	(242)	(363)
Reclassification adjustment	**(3)**	(49)	(52)
Total unrealized gain (loss) on assets available-for-sale	**150**	(291)	(415)
Defined benefit plans:			
Net gain (loss) arising during the period	**342**	(108)	(65)
Foreign exchange adjustment	**1**	—	—
Amortization of prior service credit, net loss and initial obligation included in net periodic benefit cost	**68**	57	69
Total defined benefit plans	**411**	(51)	4
Net unrealized gain (loss) on cash flow hedges	**9**	(4)	8
Total other comprehensive income (loss), net of tax *(a)*	**1,423**	(1,196)	(1,002)
Total comprehensive income	**5,537**	2,352	2,220
Net (income) loss attributable to noncontrolling interests	**(24)**	(1)	(64)
Other comprehensive (income) loss attributable to noncontrolling interests	**(15)**	31	36
Comprehensive income applicable to shareholders of The Bank of New York Mellon Corporation	**$ 5,498**	$ 2,382	$ 2,192

(a) Other comprehensive income (loss) attributable to The Bank of New York Mellon Corporation shareholders was $1,408 million for the year ended Dec. 31, 2017, $(1,165) million for the year ended Dec. 31, 2016 and $(966)

million for the year ended Dec. 31, 2015.

Consolidated Balance Sheet

	Dec. 31,	
(dollars in millions, except per share amounts)	**2017**	2016
Assets		
Cash and due from:		
Banks	**$ 5,382**	$ 4,822
Interest-bearing deposits with the Federal Reserve and other central banks	**91,510**	58,041
Interest-bearing deposits with banks	**11,979**	15,086
Federal funds sold and securities purchased under resale agreements	**28,135**	25,801
Securities:		
Held-to-maturity (fair value of $40,512 and $40,669)	**40,827**	40,905
Available-for-sale	**79,543**	73,822
Total securities	**120,370**	114,727
Trading assets	**6,022**	5,733
Loans	**61,540**	64,458
Allowance for loan losses	**(159)**	(169)
Net loans	**61,381**	64,289
Premises and equipment	**1,634**	1,303
Accrued interest receivable	**610**	568
Goodwill	**17,564**	17,316
Intangible assets	**3,411**	3,598
Other assets (includes $791 and $1,339, at fair value)	**23,029**	20,954
Subtotal assets of operations	**371,027**	332,238
Assets of consolidated investment management funds, at fair value	**731**	1,231
Total assets	**$ 371,758**	$ 333,469
Liabilities		
Deposits:		
Noninterest-bearing (principally U.S. offices)	**$ 82,716**	$ 78,342
Interest-bearing deposits in U.S. offices	**52,294**	52,049
Interest-bearing deposits in non-U.S. offices	**109,312**	91,099
Total deposits	**244,322**	221,490
Federal funds purchased and securities sold under repurchase agreements	**15,163**	9,989
Trading liabilities	**3,984**	4,389
Payables to customers and broker-dealers	**20,184**	20,987
Commercial paper	**3,075**	—
Other borrowed funds	**3,028**	754
Accrued taxes and other expenses	**6,225**	5,867
Other liabilities (including allowance for lending-related commitments of $102 and $112, also includes $800 and $597, at fair value)	**6,050**	5,635
Long-term debt (includes $367 and $363, at fair value)	**27,979**	24,463
Subtotal liabilities of operations	**330,010**	293,574
Liabilities of consolidated investment management funds, at fair value	**2**	315

Total liabilities	**330,012**	293,889
Temporary equity		
Redeemable noncontrolling interests	**179**	151
Permanent equity		
Preferred stock – par value $0.01 per share; authorized 100,000,000 shares; issued 35,826 and 35,826 shares	**3,542**	3,542
Common stock – par value $0.01 per share; authorized 3,500,000,000 shares; issued 1,354,163,581 and 1,333,706,427 shares	**14**	13
Additional paid-in capital	**26,665**	25,962
Retained earnings	**25,635**	22,621
Accumulated other comprehensive loss, net of tax	**(2,357)**	(3,765)
Less: Treasury stock of 340,721,136 and 286,218,126 common shares, at cost	**(12,248)**	(9,562)
Total The Bank of New York Mellon Corporation shareholders' equity	**41,251**	38,811
Nonredeemable noncontrolling interests of consolidated investment management funds	**316**	618
Total permanent equity	**41,567**	39,429
Total liabilities, temporary equity and permanent equity	**$ 371,758**	$ 333,469

See accompanying Notes to Consolidated Financial Statements which can be found in Exhibit IV, the Company's Annual Report.

Quarterly and Annual reports will be published respectively in the Company's Quarterly Reports on Form 10-Q and the Company's Annual Report on Form 10-K, which are available on the Company's website (www.bnymellon.com, under the "Investors Relations - Financial Information" captions).

Additional information, such as the credit ratings of the Company, can be found in the Company's Annual Report (Exhibit IV).

The cost of the stock-based compensation for U.S. GAAP accounting purposes is elaborated upon in the Company's Annual Report (Exhibit IV). In addition, the Company has incurred legal costs of approximately US$ 55,000 to implement this prospectus in order to offer securities under the Plans to eligible employees of its subsidiaries in the EEA.

Information concerning the Company's financial condition, including selected financial data, information on capitalization and indebtedness and a description of the risk factors is set forth in the Company's Annual Report (Exhibit IV).

The reasons for the offer and the use of proceeds are described in III.A above.

Information on the Company's capitalization and indebtedness and stockholder's equity is set forth in the Company's Annual Report (Exhibit IV). For detailed information related to the Company's Capital, please refer to the section entitled "Capital" on pages 53 through 61 of the Company's Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") included in its Annual Report (Exhibit IV). For detailed information related to the Company's indebtedness, please refer to the long-term debt and debt issuance paragraphs included in the section entitled "Liquidity and dividends" on pages 47 through 52 of the Company's MD&A included in its Annual Report (Exhibit IV) and Note 11 - Long-term debt to the Company's consolidated financial statements on page 168 of its Annual Report (Exhibit IV). For detailed information related to stockholder's equity, please refer to Note 13 – Shareholders' equity to the Company's consolidated financial statements on pages 169 through 172 of its Annual Report (Exhibit IV).

BNY Mellon's working capital is sufficient for its present requirements.

V. Information on the Company

A. Company history and activities

Established in 1792 by Alexander Hamilton, we were the first company listed on the New York Stock Exchange (NYSE: BK). With a more than 225-year history, BNY Mellon is a global company that manages and services assets for financial institutions, corporations and individual investors in 35 countries and more than 100 markets.

BNY Mellon has two business segments, Investment Management and Investment Services, which offer a comprehensive set of capabilities and deep expertise across the investment lifecycle, which enables the company to provide solutions to buy-side and sell-side market participants, as well as leading institutional and wealth management clients globally.

Investment Management provides investment management services to institutional and retail investors, as well as investment management, wealth and estate planning and private banking solutions to high net worth individuals and families, and foundations and endowments.

Investment Services provides business and technology solutions to financial institutions, corporations, public funds and government agencies, including: asset servicing (custody, foreign exchange, fund services, broker-dealer services, securities finance, collateral management and liquidity services), clearing services, issuer services (depositary receipts and corporate trust) and treasury services (global payments, trade finance and cash management).

As of December 31, 2017, BNY Mellon had $33.3 trillion in assets under custody and/or administration ("AUC/A"), and $1.9 trillion in assets under management ("AUM"). In 2017, the Company delivered 18% growth in earnings per share and increased the return on common equity to nearly 11% year-over-year.

The Company continues to prioritize investments in technology and operations to increase resiliency, improve efficiency and reduce risk. Excellence in risk management is essential.

The Company maintains strong capital and liquidity positions to support the Company’s business activities and client needs.

As a U. S. Global Systemically Important Bank ("G-SIB"), BNY Mellon is required to be in compliance with various capital ratios. At December 31, 2017, the Advanced Approach CET1 ratio of 10.7% was above the minimum requirement of 6.5%. The Company expects the CET1 ratio to remain at least 100 basis points above the regulatory minimum requirement plus the applicable buffers.

The Company is subject to the SLR. At December 31, 2017, the estimated fully phased-in SLR (Non-GAAP) of 5.9% was above the regulatory minimum of 5.0%. The Company currently expects to maintain an SLR ratio of at least 50 basis points above the regulatory minimum requirement plus the applicable buffer.

The Company's liquidity position remained strong in 2017. The liquidity coverage ratio ("LCR") averaged 118% in the fourth quarter and met the 100% fully phased-in regulatory requirement.

The Company prioritizes maintaining balance sheet strength in order to deploy capital efficiently to fuel future growth and return value to shareholders. In 2017, we returned $3.6 billion to shareholders, consisting of $901 million in common stock dividends and $2.7 billion in share repurchases.

B. Particular provisions of the bylaws

The Company's annual meeting of shareholders is held for the purpose of electing directors and conducting other business as may properly come before the meeting and is held each year. The last annual shareholders' meeting was held on April 11, 2017.

C. Board of Directors (as per March 12, 2018)

Name	***Age***
Linda Z. Cook	59
Joseph J. Echevarria	61
Edward P. Garden	56
Jeffrey A. Goldstein	62
John M. Hinshaw	47
Edmund F. "Ted" Kelly	72
John A. Luke, Jr.	69
Jennifer B. Morgan	46
Mark A. Nordenberg	69
Elizabeth E. Robinson	49
Charles W. Scharf	52
Samuel C. Scott III	73

D. Executive Committee and Other Executive Officers (as per March 12, 2018)

Name	***Function***
J. David Cruikshank	Chairman, Asia Pacific
Lisa Dolly	Chief Executive Officer, Pershing LLC
Bridget E. Engle*	Chief Information Officer
Thomas P. (Todd) Gibbons*	Chief Executive Officer, Clearing, Markets and Client Management
Mitchell E. Harris*	Chief Executive Officer, Investment Management

Monique R. Herena*	Chief Human Resources Officer
Hani A. Kablawi*	Chief Executive Officer, Global Asset Servicing and Chairman, Europe, Middle East and Africa
Kurtis R. Kurimsky*	Corporate Controller
Francis (Frank) La Salla*	Chief Executive Officer, Issuer Services
J. Kevin McCarthy*	General Counsel
Michelle M. Neal	Chief Executive Officer, BNY Mellon Markets
Brian Ruane	Chief Executive Officer, Government Securities Services Corp.
Michael P. Santomassimo*	Chief Financial Officer
Charles W. Scharf*	Chairman and Chief Executive Officer
Douglas H. Shulman*	Head of Client Service Delivery
James. S. Wiener*	Chief Risk Officer

* Designated as an Executive Officer

To the extent that such activity is required to be disclosed in Exhibits IV or V, for at least the previous five years, none of the directors or executive officers of the Company has:

(a) been convicted in relation to fraudulent offences;

(b) been associated with any bankruptcies, receiverships or liquidations when acting in their capacity as directors or executive officers of the Company; or

(c) been subject to any official public incrimination and/or sanctions by statutory or regulatory authorities (including designated professional bodies) or ever been disqualified by a court from acting as a member of the administrative, management or supervisory bodies of an issuer or from acting in the management or conduct of the affairs of any issuer.

There are no family relationships between any of the directors and the executive officers listed above.

As indicated in the Company's Annual Report (Exhibit IV), the Company has adopted guidelines regarding corporate governance, including a Code of Conduct posted on the Company's website at www.bnymellon.com/ethics/codeofconduct.pdf and a Directors' Code of Conduct, posted on the Company's website at www.bnymellon.com/governance/directorscodeofconduct.pdf. Both items are available in print (free of charge) to any shareholder who requests a copy. Requests should be sent by email to investorrelations@bnymellon.com or by mail to Investor Relations at The Bank of New York Mellon Corporation, 225 Liberty Street, New York, NY 10286.

Information on the Company, including its history and development, a business overview, its organizational structure and information concerning its property, is set forth in the Company's Annual Report (Exhibit IV).

VI. Operating and financial review and prospects

Information concerning the Company's operating results, its liquidity and capital resources and trends, among other things, is set forth in the Company's Annual Report (Exhibit IV).

VII. Directors, senior management and employees

Information concerning the Company's directors and senior management, their remuneration, Board practices, the Company's employees and share ownership is set forth in the Company's Annual Report (Exhibit IV) and in the Company's Definitive Proxy Statement as filed on March 10, 2017 (Exhibit V)[1].

VIII. Major shareholders and related party transactions

Information concerning major shareholders of the Company, related party transactions and information concerning interests of experts and advisers is set forth in the Company's Definitive Proxy Statement as filed on March 10, 2017 (Exhibit V)[1].

IX. Additional information

More detailed information about the Company, including information about its charter documents, and its businesses, as well as the contact information for certain subsidiaries of the Company, is available on the Company's website (www.bnymellon.com).

The Annual Report on Form 10-K for the Company and its predecessors for fiscal years ending December 31, 2017, December 31, 2016 and December 31, 2015, as well as Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13 (a) or 15 (d) of the Securities Exchange Act of 1934, as amended, are also made available on the Company's website (www.bnymellon.com, under the "Investor Relations - Financial Information" caption) after the Company electronically files such materials with, or furnishes them to, the SEC.

Required filings by the Company's officers and directors and certain third parties with respect to transactions or holdings in Shares are also made available on the Company's website, as are statements for the Company's shareholder meetings. These filings may also be read and copied at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. The SEC also maintains an internet site (www.sec.gov) that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC.

Information about the Company's Board of Directors and Board Committees, including Committee charters, is available on the Company's website (www.bnymellon.com, under the "Investor Relations" caption). This information is also available in print (free of charge) to any shareholder who requests it from the Company's Investor Relations department.

[1] The Company's Definitive Proxy Statement of 2018 was not yet filed at the date of approval of this prospectus; once filed, it will be made available on the Company's website (www.bnymellon.com, under the "Investor Relations - Financial Information" caption).

EXHIBITS

EXHIBIT I
THE BANK OF NEW YORK MELLON CORPORATION EMPLOYEE STOCK PURCHASE PLAN

THE BANK OF NEW YORK MELLON CORPORATION
EMPLOYEE STOCK PURCHASE PLAN

1. *Purpose.*

The purpose of this Employee Stock Purchase Plan (the "Plan") is to provide an opportunity for employees of The Bank of New York Mellon Corporation (the "Company") and its Subsidiaries and Affiliates, to purchase common stock of the Company (the "Common Stock") and thereby to have an additional incentive to contribute to the success of the Company.

2. *Administration.*

The Human Resources and Compensation Committee of the Board of Directors of the Company (the "Board"), including any successor committee, or such other committee of the Board as the Board may from time to time appoint to administer the Plan (the "Committee") will have the authority and responsibility for the day-to-day administration of the Plan, the authority and responsibility specifically provided in this Plan and any additional duties, responsibility and authority delegated to the Committee by the Board, which may include any of the functions assigned to the Board in this Plan. The Committee may delegate to one or more individuals the day-to-day administration of, and other responsibilities relating to, the Plan. The Committee shall have full power and authority to promulgate any rules and regulations which it deems necessary for the proper administration of the Plan, to establish required ownership levels for Subsidiaries and Affiliates, to identify eligible Employees or the parameters by which they shall be identified, to interpret the provisions and supervise the administration of the Plan, to make factual determinations relevant to Plan entitlements and to take all action in connection with administration of the Plan as it deems necessary or advisable. Decisions of the Board and the Committee shall be final and binding upon all Participants and other persons having or claiming an interest in the Plan. Any decision reduced to writing and signed by all of the members of the Committee shall be fully effective, as if it had been made at a meeting of the Committee duly held. The Company shall pay all expenses incurred in the administration of the Plan. No Board or Committee member shall be liable for any action or determination made in good faith with respect to the Plan or any option granted hereunder.

3. *Eligibility.*

3.1 *Employees.* Any individual classified as a U.S. domestic salaried employee by the Company or a Subsidiary or Affiliate on its payroll records (an "Employee") and regularly employed on a basis of at least 20 hours per week by the Company or by any Subsidiary or Affiliate on an Offering Date, as defined in Section 5.2, shall be eligible to participate in the Plan with respect to the Purchase Period, as defined in Section 5.2, commencing on such Offering Date, unless otherwise determined by the Committee or its delegate. Any individual classified as a non-U.S. employee by the Company or a Subsidiary or Affiliate on its payroll records shall not be eligible to participate in the Plan unless otherwise determined by the Committee or its delegate. The Committee or its delegate may also impose an eligibility period and other restrictions with respect to participation on any prospective Offering Date, including restrictions on eligibility and participation of Employees to facilitate compliance with federal or state securities laws or foreign laws.

3.2 *Subsidiaries and Affiliates.* For purposes of the Plan, the term "Subsidiary" shall mean any corporation (other than the Company) in which the Company owns, directly or indirectly, more than 50% (or higher ownership level established by the Committee) of the voting power and the term "Affiliate" shall mean any limited partnership, limited liability company or other organization in which the Company owns more than 50% (or higher ownership level established by the Committee) of the voting power.

4. *Participation and Withdrawal.*

4.1 *Enrollment.* An Employee who is eligible to participate in the Plan in accordance with Section 3 may become a participant in the Plan (a "Participant") beginning with the first pay period ending in a Purchase Period by filing, during the enrollment period prior to an applicable Offering Date prescribed by the Committee or its delegate, a completed payroll deduction authorization and Plan enrollment form provided by the Company or by following an interactive voice response ("IVR"), electronic or other enrollment process as prescribed by the Committee or its delegate. Unless otherwise determined by the Committee or its delegate, an Employee who does not follow the prescribed procedures to enroll on or before the enrollment deadline preceding the Offering Date for a Purchase Period may not participate in the Plan with respect to that Purchase Period. Participation may be conditioned on an eligible Employee's consent to transfer and process personal data and on acknowledgment and agreement to Plan terms and other specified conditions not inconsistent with the Plan.

4.2 *Payroll Deductions.*

(a) *Authorization.* An eligible Employee may authorize payroll deductions at the rate of any whole percentage of the Employee's Eligible Compensation, as defined in Section 4.2(c), not to exceed 10% or such greater percentage as specified by the Committee. All payroll deductions may be used by the Company for any corporate purpose, and the Company shall not be obligated to segregate such payroll deductions unless required under local law. No interest shall be paid or credited to the Participant with respect to such payroll deductions except where required by local law as determined by the Committee or its delegate. A separate bookkeeping account for each Participant shall be maintained by the Company under the Plan, and the amount of each Participant's payroll deductions shall be credited to such account. A Participant may not make any additional payments into such account. Payroll deductions made with respect to employees paid in currencies other than U.S. dollars shall be converted to U.S. dollars as of each Purchase Date, as defined in Section 5.2, using the then applicable exchange rate, as determined by the Committee or its delegate; provided, however, that the Committee or its delegate may determine, with respect to any Purchase Period, that payroll deductions shall be converted to U.S. dollars based on an average or median exchange rate applicable for the relevant Purchase Period.

(b) *Increases or Decreases.* Subject to such limitations, if any, as prescribed by the Committee or its delegate, a Participant may prospectively decrease his or her rate of payroll deductions at any time by filing a new payroll deduction authorization and Plan enrollment form or by following IVR, electronic or other procedures prescribed by the Committee or its delegate. A Participant may not increase his or her rate of payroll deductions during a Purchase Period but may increase such rate only effective on the first payroll date following the next Purchase Date by filing a new payroll deduction authorization and Plan enrollment form or by following IVR, electronic or other procedures prescribed by the Committee or its delegate. If a Participant has not followed such procedures to change the rate of payroll deductions, the rate of payroll deductions shall continue at the originally elected rate throughout the Purchase Period and future Purchase Periods unless reduced to reflect a change by the Committee in the maximum permissible rate.

(c) *Eligible Compensation.* For purposes of this Plan, "Eligible Compensation" shall mean the base rate of cash remuneration of an Employee as it appears on the books and records of the Company, Subsidiary or Affiliate for services rendered, determined prior to any contractual reductions, including, but not limited to, those related to contributions under a "qualified cash or deferred arrangement" (as determined under Section 401(k) of the Internal Revenue Code of 1986, as amended ("Code") and its applicable regulations), any executive deferred compensation plan, or under a "cafeteria plan" (as defined under Section 125 of the Code and its applicable regulations), or reductions for qualified transportation benefits under Section 132(f) of the Code. Eligible Compensation shall not include bonuses, overtime pay, severance, all other forms of special pay or compensation, or amounts received from any deferred compensation plan. The Committee shall have the authority to determine, and to approve the inclusion or deletion of any or all forms of compensation (such as overtime or commissions) in or from the definition of, Eligible Compensation and may change the definition on a prospective basis.

4.3 *Withdrawal.*

(a) *Discontinuance.* Under procedures established by the Committee or its delegate, a Participant may discontinue payroll deductions under the Plan at any time during a Purchase Period by completing and filing a new payroll deduction authorization and Plan enrollment form with the Company or by following IVR, electronic or other procedures prescribed by the Committee or its delegate. If a Participant has not followed such procedures to discontinue the payroll deductions, the rate of payroll deductions shall continue at the originally elected rate throughout the Purchase Period and future Purchase Periods unless reduced to reflect a change by the Committee in the maximum permissible rate.

(b) *Effect of Discontinuance.* If a Participant discontinues participation during a Purchase Period, his or her accumulated payroll deductions will remain in the Plan for purchase of shares as specified in Section 6 on the following Purchase Date, but the Participant will not again participate until he or she re-enrolls in the Plan.

4.4 *Termination of Employment.* In the event any Participant's employment with the Company and its Subsidiaries and Affiliates is terminated for any reason (including death) prior to the expiration of a Purchase Period, the Participant's participation in the Plan shall discontinue; provided, however, all amounts credited to the Participant's account shall remain in the Plan for purchase of shares as specified in Section 6 on the following Purchase Date. Whether a termination of employment (for reasons other than death) has occurred shall be determined by the Committee or its delegate. The Committee or its delegate also may establish rules regarding when leaves of absence or changes of employment status will be considered to be a termination of employment, and the Committee or its delegate may establish termination of employment procedures for this Plan which are independent of similar rules established under other benefit plans of the Company and its Subsidiaries and Affiliates.

5. *Offering.*

5.1 *Authorized Shares.* (a) The maximum number of shares of Common Stock which may be issued pursuant to the Plan shall be 7,500,000 shares. The shares which may be issued under the Plan may be either authorized but unissued shares or treasury shares or partly each, as determined from time to time by the Board. If on any Purchase Date the number of shares otherwise purchasable by Participants is greater than the number of shares then remaining available under the Plan, the Committee shall allocate the available shares among the Participants on a basis as it deems equitable.

5.2 *Purchase Periods.* Each purchase period (a "Purchase Period") shall be determined by the Committee or its delegate. Unless otherwise determined by the Committee or its delegate, the duration of each Purchase Period shall be one month. Unless otherwise determined by the Committee or its delegate, (i) the first Purchase Period shall commence on September 1, 2008; and (ii) subsequent Purchase Periods shall run consecutively after the termination of the preceding Purchase Period. The Committee shall have the power to change the commencement date or duration of future Purchase Periods, without shareholder approval, and without regard to the expectations of any Participants. For purposes of the Plan, the term "Offering Date" shall mean the first business day of each Purchase Period, and the term "Purchase Date" shall mean the last business day of each Purchase Period which is also a trading day.

5.3 *Purchase Price.* The price for each option to purchase shall be 95% (the "Designated Percentage") of the Fair Market Value of Common Stock on the Purchase Date on which the Common Stock is purchased. The Committee may change the Designated Percentage with respect to any future Purchase Period, but not below 85%. For purposes of the Plan, the term "Fair Market Value" shall mean the closing price of a share of Common Stock in the New York Stock Exchange Composite Transactions on the relevant date, or, if no sale shall have been made on such exchange on that date, the closing price in the New York Stock Exchange Composite Transactions on the last preceding day on which there was a sale.

5.4 *$25,000 Limitation.* Notwithstanding any other provision of the Plan to the contrary, no Participant in the Plan shall be granted an option which permits the Participant to accrue options to purchase Common Stock at a rate which exceeds $25,000 of Fair Market Value of Common Stock in any calendar year.

6. *Purchase of Stock.*

On each Purchase Date, a Participant shall automatically exercise the option to purchase the total number of full and fractional shares of Common Stock which the accumulated payroll deductions credited to the Participant's account at that time shall be able to purchase at the applicable price specified in Section 5.3. Notwithstanding the preceding sentence:

(a) The number of shares which may be purchased by any Participant on the first Purchase Date to occur in any calendar year may not exceed the number of shares determined by dividing $25,000 by the Fair Market Value of a share of Common Stock on the Purchase Date; and

(b) The number of shares which may be purchased by a Participant on any subsequent Purchase Date in the same calendar year shall not exceed the number of shares determined by performing the calculation below:

> Step One: Multiply the number of shares purchased by the Participant on each previous Purchase Date in the same calendar year by the Fair Market Value of a share of Common Stock on such Purchase Dates.
>
> Step Two: Subtract the amount(s) determined in Step One from $25,000.
>
> Step Three: Divide the remainder amount determined in Step Two by the Fair Market Value of a share of Common Stock on the Purchase Date for which the calculation is being performed. The quotient thus obtained is the maximum number of shares which may be purchased by the Participant on such Purchase Date.

To the extent any payroll deductions are not used on the Purchase Date for the purchase of shares of Common Stock, they shall be refunded without interest to the Participant.

7. ***Payment and Delivery.***

Unless otherwise determined by the Committee or its delegate, all shares purchased under the Plan shall be deposited directly to an account established in the name of the Participant with Mellon Investor Services, LLC, or its successor or other entity chosen by the Committee from time to time ("MIS"). Upon the exercise of an option on each Purchase Date, the Company or MIS shall deliver (by electronic or other means) to the Participant a record of the Common Stock purchased. The Committee or its delegate may require or permit shares purchased under the Plan to be deposited directly with any other broker or agent designated by the Committee or its delegate, and the Committee may utilize electronic or automated methods of share transfer. The Committee or its delegate may also require that all dividends received on the full and fractional shares acquired under the Plan be applied to the purchase of additional shares, without any discount on the Fair Market Value of such shares, and automatically reinvested in a dividend reinvestment plan or program maintained by the Company, including a program maintained under the Plan.

The Company shall retain the amount of payroll deductions used to purchase Common Stock as full payment for the Common Stock, and the Common Stock shall then be fully paid and non-assessable. No Participant shall have any voting, dividend, or other shareholder rights with respect to shares subject to any option granted under the Plan until the shares subject to the option have been purchased and delivered to the Participant as provided in this Section 7.

8. ***Recapitalization.***

8.1 *Stock Splits and Dividends.* If a dividend or other distribution shall be declared upon the Common Stock payable in shares of the Common Stock, the number of shares of the Common Stock then subject to any outstanding options, the number of shares of the Common Stock subject to the share limit provided in Section 6 and the number of shares which may be issued under the Plan under Section 5.1 but are not then subject to outstanding stock options shall be adjusted by adding thereto the number of shares of the Common Stock which would have been distributable thereon if such shares had been outstanding on the date fixed for determining the shareholders entitled to receive such stock dividend or distribution. In addition, the terms relating to the purchase price with respect to the option shall be appropriately adjusted, and the Committee shall take any further actions which, in the exercise of its discretion, may be necessary or appropriate under the circumstances.

8.2 *Reorganizations.* The Board or the Committee, if it so determines in the exercise of its sole discretion, also may adjust the number and kind of shares specified in Section 5.1, as well as the price per share covered by each outstanding option, the number of shares subject to any individual option and the share limit of Section 6, in the event the Company effects one or more reorganizations, recapitalizations, spin-offs, split-ups, rights offerings or reductions of shares of its outstanding Common Stock.

8.3 *Effect of Determinations.* The determinations of the Board or the Committee under this Section 8 shall be final, conclusive and binding on all parties.

9. ***Merger, Liquidation, Other Company Transactions.***

9.1 *Liquidation or Dissolution.* In the event of the proposed liquidation or dissolution of the Company, the Purchase Period then in progress will terminate immediately prior to the consummation of such liquidation or dissolution, unless otherwise provided by the Board in its sole discretion, and all outstanding options shall automatically terminate and the amounts of all payroll deductions will be refunded without interest to the Participants.

9.2 *Merger or Consolidation.* In the event of a proposed sale of all or substantially all of the assets of the Company, or the merger or consolidation of the Company with or into another corporation, then in the sole discretion of the Board, (1) each option shall be assumed, or an equivalent option shall be substituted, by the successor corporation or parent or subsidiary of such successor corporation or (2) a date established by the Board on or before the date of consummation of such merger, consolidation or sale shall be treated as a Purchase Date, and all outstanding options shall be deemed exercised on such date.

10. ***Transferability.***

Options granted to Participants may not be voluntarily or involuntarily assigned, transferred, pledged, or otherwise disposed of in any way, and, except as provided in Section 4.4, are exercisable during the Participant's lifetime only by the Participant. Any attempted assignment, transfer, pledge, or other disposition shall be null and void and without effect. If a Participant in any manner attempts to transfer, assign or otherwise encumber his or her rights or interest under the Plan, such act shall be treated as an election by the Participant to discontinue participation in the Plan pursuant to Section 4.3.

11. ***Amendment or Termination of the Plan.***

The Board may, in its sole discretion, insofar as permitted by law, terminate the Plan, or revise or amend it in any respect whatsoever, except that, no such revision or amendment may be made without approval of the shareholders if shareholder approval is required by the rules of any stock exchange on which the Common Stock is listed or if such revision or amendment would increase the number of shares subject to the Plan, other than an adjustment under Section 8 of the Plan. The Committee may, in its discretion, suspend the Plan.

12. ***Committee Rules For Non-U.S. Jurisdictions.***

12.1 *Local Laws.* The Committee or its delegate may adopt rules or procedures relating to the operation and administration of the Plan to accommodate the specific requirements of local laws and procedures. Without limiting the generality of the foregoing, the Committee or its delegate is specifically authorized to adopt rules and procedures regarding handling of payroll deductions, payment of interest, conversion of local currency, payroll tax, withholding procedures and handling of stock or stock certificates which vary with local requirements.

12.2 *Sub-plans.* The Committee may also adopt sub-plans applicable to particular subsidiaries or affiliates. The rules of such sub-plans may take precedence over other provisions of this Plan, with the exception of Section 5.1, but unless otherwise superseded by the terms of such sub-plan, the provisions of this Plan shall govern the operation of such sub-plan. The Committee may also adopt sub-plans applicable to predecessor company plans, on such terms as it may specify.

13. ***Compliance with Legal and Exchange Requirements.***

The Company shall not be under any obligation to issue Common Stock upon the exercise of any option unless and until the Company has determined that: (i) it and the Participant have taken all actions required to register the Common Stock under the Securities Act of 1933, or to perfect an exemption from the registration requirements thereof; (ii) any applicable listing requirement of any stock exchange on which the Common Stock is listed has been satisfied; and (iii) all other applicable provisions of state, federal and applicable foreign law have been satisfied.

14. ***Governmental Approvals.***

This Plan and the Company's obligation to sell and deliver shares of its stock under the Plan in any jurisdiction shall be subject to the approval of any governmental authority required in connection with the Plan or the authorization, issuance, sale, or delivery of stock hereunder in such jurisdiction.

15. *No Enlargement Of Employee Rights.*

Nothing contained in this Plan shall be deemed to give any Employee the right to be retained in the employ of the Company or any Subsidiary or Affiliate or to interfere with the right of the Company or any Subsidiary or Affiliate to discharge any Employee at any time. It is not intended that any rights or benefits provided under this Plan shall be considered part of normal or expected compensation for purposes of calculating any severance, resignation, redundancy, end of service payments, bonuses, long service awards, pension, retirement or similar payments.

16. *Withholding Taxes.*

In the event that the Company or any Subsidiary or Affiliate is required to withhold any federal, state, local or foreign taxes in respect of any compensation or other income realized by the Participant, the Company or such Subsidiary or Affiliate may deduct from any payments of any kind otherwise due to such Participant, including without limitation the proceeds of any sale of Common Stock for the account of the Participant, the aggregate amount of such federal, state, local or foreign taxes required to be withheld. If such payments are insufficient to satisfy such federal, state, local or foreign taxes, the Participant will be required to pay to the Company or such Subsidiary or Affiliate, or make other arrangements satisfactory to the Company or such Subsidiary or Affiliate regarding payment to the Company or such Subsidiary or Affiliate of, the aggregate amount of any such taxes.

17. *Governing Law.*

This Plan shall be governed by and construed in accordance with the laws of the State of New York, without regard to conflicts of law principles.

18. *Severability.*

If any provision of the Plan shall be held illegal or invalid in any jurisdiction, such illegality or invalidity shall not affect the remaining provisions of the Plan in such jurisdiction, or any provision of the Plan in any other jurisdiction, and the Plan shall be construed and applied in such jurisdiction as if the invalid provision had never been contained herein.

19. *Effective Date.*

This Plan shall be effective March 11, 2008, the date of its adoption by the Board, subject to approval of the shareholders of the Company at the 2008 Annual Meeting.

EXHIBIT II
THE BANK OF NEW YORK MELLON CORPORATION SHARE ACCUMULATION PLAN

TRUST DEED and RULES

of the

THE BANK OF NEW YORK MELLON CORPORATION

STOCK ACCUMULATION PLAN

DATED
June 2009

Approved by HM Revenue & Customs on
2009
under reference A102766

Deloitte LLP
2 New Street Square
London
EC4A 3BZ

TRUST DEED and
RULES OF THE
THE BANK OF NEW YORK MELLON CORPORATION
STOCK ACCUMULATION PLAN

TRUST DEED

THIS TRUST DEED is made the day of June 2009

BETWEEN

(1) The Bank of New York Mellon Corporation (incorporated in the State of Delaware under no. 5881587) whose principal office is at One Wall Street, New York, New York 10286, United States of America (**"the Company"**);

(2) Those Participating Companies set out at Schedule B to this Deed; and

(3) Capita IRG Trustees Limited (incorporated in England and Wales under registration no: 2729260) whose registered office is at The Registry, 34 Beckenham Road, Beckenham, Kent BR3 4TU **("the Trustees")**

together the **"Original Parties".**

WHEREAS

(A) The Company wishes to establish a share incentive plan approved in accordance with the provisions of Schedule 2 to ITEPA.

(B) The Plan shall constitute an employees' share scheme as that term is defined in section 1166 of the Companies Act 2006 for the provision by the Company of funds for the acquisition by the Trustees of Shares or any shares representing the same.

(C) The Company has adopted the Plan in accordance with Rule 12.2 of the Employee Stock Purchase Plan (**"ESPP"**) approved pursuant to a stockholders resolution dated 8 April 2008.

(D) The Trustees have agreed to be the first trustees of the Plan.

NOW THIS DEED WITNESSETH as follows:

1. DEFINITIONS AND INTERPRETATION

The words and expressions used in this Deed shall where the context permits, have the meaning set out in Rule 1 of the Schedule A to this Deed.

2. OBJECT OF THE TRUST

The purpose of this Deed is to establish a trust for the Plan that satisfies Schedule 2 to ITEPA.

3. THE PLAN

The Plan consists of this Deed and the attached Schedule A. The definitions in the Rules apply to this Deed. The Company from time to time determines which of parts A to D of the Rules shall have effect. Where the Company determines that part B shall have effect it shall also specify whether there is to be an Accumulation Period of up to twelve months, which shall apply equally to all Qualifying Employees in the Plan.

4. DECLARATION OF TRUST

The Company and the Trustees have agreed that all the Shares and other assets that are transferred to the Trustees are to be held on the trusts declared by this Deed, and subject to the terms of the Rules. When Shares or assets are transferred to the Trustees by the Company with the intention of being held as part of the Plan they shall be held upon the trusts and provisions of this Deed and the Rules.

The Trustees shall hold the Trust Fund upon the following trusts namely:

(a) as to Unawarded Shares to allocate those Shares in accordance with the terms of this Deed and the Rules;

(b) as to Shares which have been awarded to a Participant upon trust for the benefit of that Participant on the terms and conditions set out in the Rules;

(c) as to Partnership Share Money upon trust to acquire Shares for the benefit of the contributing Qualifying Employee in accordance with the Rules or to appropriate Unawarded Shares to such Qualifying Employee; and

(d) as to Surplus Assets upon trust to use them to acquire further Shares to be held on the trusts declared in (a) above, at such time during the Trust Period and on such terms as the Trustees in their absolute discretion think fit.

The income of Unawarded Shares and Surplus Assets shall be accumulated by the Trustees and added to, and held upon the trusts applying to, Surplus Assets.

The income of Plan Shares and Partnership Share Money shall be dealt with in accordance with the Rules.

The perpetuity period in respect of the trusts and powers declared by this Deed and the Rules shall be the period of eighty years from the date of this Deed.

5. NUMBER OF TRUSTEES

Unless a corporate Trustee is appointed, there shall always be at least two Trustees. Where there is no corporate Trustee, and the number of Trustees falls below two, the continuing Trustee has the power to act only to achieve the appointment of a new Trustee.

6. INFORMATION

The Trustees shall be entitled to rely without further enquiry on all information supplied to them by the Company and Participating Companies for the purposes of the Plan. In particular, but without prejudice to the generality of the foregoing, any notice given by the Company or a Participating Company to the Trustees in respect of the eligibility of any person to become or remain a Participant in the Plan shall be conclusive in favour of the Trustees.

7. RESIDENCE OF TRUSTEES

At all times the Trustees shall be a body of persons resident in the UK pursuant to paragraph 71(1) of Schedule 2. The Company shall immediately remove any Trustee who ceases to be so resident and, if necessary, appoint a replacement.

8. CHANGE OF TRUSTEES

The Company has the power to appoint or remove any Trustee for any reason. the Company shall execute a deed to effect the change of Trustee. Any Trustee may resign on one month's notice given in writing to the Company, provided that there will be at least two Trustees or a corporate Trustee immediately after the retirement.

9. INVESTMENT AND DEALING WITH TRUST ASSETS

(a) Save as otherwise provided for by the Plan the Trustees shall not sell or otherwise dispose of Plan Shares.

(b) The Trustees shall obey any directions given by a Participant in accordance with the Rules in relation to his Plan Shares and any rights and income relating to those Shares. In the absence of any such direction, or provision by the Plan, the Trustees shall take no action.

(c) The Company and the Participating Companies shall, as soon as practicable after deduction from Salary, pass the Partnership Share Money to the Trustees who will put the money into an account with:

(i) a person falling within section 991(2)(b) of ITA 2007;

(ii) a building society; or

(iii) an institution falling within section 991(2)(c) of ITA 2007,

until it is either used to acquire Partnership Shares (or appropriate Unawarded Shares) on the Acquisition Date, or, in accordance with the Plan, returned to the individual from whose Salary the Partnership Share Money has been deducted.

(d) The Trustees shall pass on any interest arising on this invested money to the individual from whose Salary the Partnership Share Money has been deducted.

(e) The Trustees may either retain or sell Unawarded Shares at their absolute discretion. The proceeds of any sale of Unawarded Shares shall form part of Surplus Assets.

(f) The Trustees shall have all the powers of investment of a beneficial owner in relation to Surplus Assets.

(g) The Trustees shall be under no duty to invest Surplus Assets.

(h) The Trustees shall not be under any liability to the Participating Companies or to current or former Qualifying Employees by reason of a failure to diversify investments, which results from the retention of Plan or Unawarded Shares.

(i) The Trustees may allow any Shares to be registered in the name of an appointed nominee provided that such Shares shall be registered in a designated account. Such registration shall not divest the Trustees of their responsibilities under this Deed or Schedule 2.

(j) The Trustees may at any time, and shall if the Company so directs, revoke any delegation made under this Clause or require any Plan assets held by another person to be returned to the Trustees, or both.

(k) The Trustees may place the documents of title to any securities for the time being in its possession that relate to the Plan or the trusts hereof in any bank or safe deposit. At any time when there is more than one Trustee, the Trustees shall be entitled to procure that any one or more of them may be registered as proprietor of any property held by them upon the trusts of this deed.

(l) The Trustees shall treat Participants fairly and equally in exercising their powers under Part 8 of Schedule 2 in relation to the acquisition of any Dividend Shares.

10. LOANS TO TRUSTEES

The Trustees shall have the power to borrow money for the purpose of:

(a) acquiring Shares; and

(b) paying any other expenses properly incurred by the Trustees in administering the Plan,

on such terms as it thinks fit.

11. SHARES FROM QUALIFYING SHARE OWNERSHIP TRUSTS

Where Shares are transferred to the Trustees by a qualifying transfer in accordance with paragraph 78(1) of Schedule 2, they shall award such Shares only as Free and Matching Shares, and in priority to other available Shares.

12. TRUSTEES' OBLIGATIONS UNDER THE PLAN

Notice of Award of Free and Matching Shares

12.1 As soon as practicable after Free and Matching Shares have been awarded to a Participant, the Trustees shall give the Participant a notice stating:

(a) the number and description of those Shares;

(b) their Initial Market Value on the Award Date; and

(c) the Holding Period applicable to them.

Notice of Award of Partnership Shares

12.2 As soon as practicable after any Partnership Shares have been awarded to a Participant, the Trustees shall give the Participant a notice stating:

(a) the number and description of those Shares;

(b) the amount of money applied by the Trustees in acquiring those Shares on behalf of the Participant; and

(c) the Market Value at the Acquisition Date.

Notice of Dividend Shares

12.3 As soon as practicable after Dividend Shares have been acquired on behalf of a Participant, the Trustees shall give the Participant a notice stating:

(a) the number and description of those Shares;

(b) their Market Value on the Acquisition Date;

(c) the Holding Period applicable to them; and

(d) any amount not reinvested and carried forward for acquisition of further Dividend Shares.

Maintenance of Trust Records

12.4 The Trustees shall maintain proper records and in particular:

(a) The Trustees shall make proper arrangements for the preparation and preservation of all necessary accounts (including the accounts of individual employees) records and other documents necessary to carry out their obligations concerning the proper administration of the Plan. The Participating Companies hereby undertake to make available to the Trustees all facilities and information necessary to ensure that full compliance is made with the provisions of the Plan.

(b) For the purposes of Rules 5.3 to 5.5, the Trustees shall maintain records of any Participant who in any Tax Year has been awarded shares under another plan approved under Schedule 2 and established by the Company or a Connected Company.

(c) Without limitation to the generality of the foregoing the Trustees shall maintain such records as may be necessary for the purposes of their own PAYE and NICs obligations or the PAYE and NICs obligations of the Employer Company (being the company of which the Participant is an employee at the time when any Plan Shares to which the Participant is entitled cease to be subject to the Plan and to whom the PAYE regulations, within the meaning of section 685 of ITEPA, at that time apply).

(d) The Trustees shall submit to the Company such reports or other information as it may reasonably require for ensuring that the Plan is properly administered. Without prejudice to the generality of the foregoing, the Trustees shall submit to the Company copies of all documents including the annual returns which have been supplied to the Board of HM Revenue & Customs within twenty-one days of their being so supplied.

(e) The Company and its proper officers shall at all times be entitled on service of proper notice to inspect all accounts documents and records whatsoever maintained by the Trustees for the purposes of the Plan. The Company may at any time and at its absolute discretion audit or cause to be audited those accounts documents and records.

13. RESTRICTIONS DURING THE HOLDING PERIOD

13.1 During the Holding Period the Trustees shall not dispose of any Free, Matching or Dividend Shares (whether by transfer to the employee or otherwise) unless the Participant has at that point ceased to be in Relevant Employment except as allowed by the following paragraphs of Schedule 2:

(a) paragraph 37(1) (power of Trustees to accept general offers etc.);

(b) paragraph 77(1) (power of Trustees to raise funds to subscribe for rights issue);

(c) paragraph 79(1) (meeting PAYE obligations); and

(d) paragraph 90(8) (termination of plan: early removal of Shares with participant's consent).

PAYE Liability etc.

13.2 This Rule applies where the Trustees become liable to account for PAYE.

(a) The Trustees may dispose of a Participant's Shares or accept a sum from the Participant in order to meet any PAYE liability as a result of a Participant's Shares ceasing to be subject to the Plan, including a liability arising in the circumstances provided in section 510 ITEPA (PAYE: Payment by Trustees to employer company on Shares ceasing to be subject to the plan).

(b) Where the Trustees receive a sum of money which constitutes a Capital Receipt in respect of which a Participant is chargeable to income tax under ITEPA, the Trustees shall pay to the employer a sum equal to that on which income tax is so payable.

(c) The Trustees shall maintain the records necessary to enable them to carry out their PAYE obligations, and the PAYE obligations of the employer company so far as they relate to the Plan.

(d) Where the Participant becomes liable to income tax under ITEPA, or Chapter 3 or Chapter 4 of Part 4 of ITTOIA, the Trustees shall inform the Participant of any facts that are relevant to determining that liability.

Money's worth received by Trustees

13.3 The Trustees shall pay over to the Participant as soon as is practicable, any money or money's worth received by them in respect of or by reference to any Shares, other than money's worth consisting of new shares within paragraph 86 of Schedule 2 ('Company Reconstructions').

This is subject to:

(a) the provisions of paragraph 62 of Schedule 2 (dividend reinvestment);

(b) the Trustees obligations under sections 510 to 514 ITEPA (PAYE: Shares ceasing to be subject to the Plan, and obligations to make payments to employer etc); and

(c) the Trustees' PAYE obligations.

General offers etc.

13.4 If any offer, compromise, arrangement or scheme is made which affects the Free Shares or Matching Shares the Trustees shall notify Participants. Each Participant may direct how the Trustees shall act in relation to that Participant's Plan Shares. In the absence of any direction, the Trustees shall take no action.

14. POWER OF TRUSTEES TO RAISE FUNDS TO SUBSCRIBE FOR A RIGHTS ISSUE

If instructed by Participants in respect of their Plan Shares the Trustees may dispose of some of the Rights under a rights issue arising from those Shares to obtain enough funds to exercise the remaining Rights. The Rights referred to are rights to acquire additional shares or rights in the same company.

15. POWER TO AGREE MARKET VALUE SHARES

Where the Market Value of Shares falls to be determined for the purposes of Schedule 2, the Trustees may agree with HM Revenue & Customs that it shall be determined by reference to such date or dates, or to an average of the values on a number of dates, as specified in the agreement.

16. PERSONAL INTEREST OF TRUSTEES

Trustees, and directors, officers or employees of a corporate Trustee, shall not be liable to account for any benefit accruing to them by virtue of their:

(a) participation in the Plan as a Qualifying Employee;

(b) ownership, in a beneficial or fiduciary capacity, of any shares or other securities in any Participating Company;

(c) being a director or employee of any Participating Company, being a creditor, or being in any other contractual relationship with any such Company.

Permitted dealings of Trustees

A Trustee and any director or other officer of a company acting as Trustee shall not be precluded from acquiring holding or dealing with any debentures, debenture stock shares or securities whatsoever of any Participating Company or any other company in which the Trustees may be interested. Such a person shall not be precluded from making any contract or other transaction with any Participating Company or any such other company. Such a person shall not be in any way liable to account to any Participant, any Participating Company, or such other company for any profits made or benefits obtained in connection therewith.

17. ADMINISTRATION OF THE TRUST

(a) A Trustee being a company may in its capacity as a Trustee hereof act by its officers and may by such officers have and exercise all powers trusts and discretion vested in it hereunder.

(b) The Trustees may employ and act on the advice or opinion of any solicitor, broker, actuary, accountant or other professional or business person whether such advice was obtained by the Trustees or by the Company and shall not be responsible for any loss occasioned by its so acting. the Company shall meet the expenses of such advice or opinions to the extent that it, in its sole discretion, considers such expenses reasonable.

(c) The Trustees may employ on such terms as the Company may agree as to remuneration any agent or agents to transact all or any business of whatsoever nature required to be done in the proper administration of the trusts powers and provisions hereof.

The Trustees shall hold meetings as often as is necessary for the administration of the Plan. There shall be at least two Trustees present at a meeting, except where the sole Trustee is a corporate Trustee, and the Trustees shall give due notice to all the Trustees of such a meeting. Decisions made at such a meeting by a majority of the Trustees present shall be binding on all the Trustees. A written resolution signed by all the Trustees shall have the same effect as a resolution passed at a meeting.

18. NOTICE OF ANY FOREIGN TAX DEDUCTED BEFORE DIVIDEND PAID

Where any foreign cash dividend is received in respect of Plan Shares held on behalf of a Participant, the Trustees shall give the Participant notice of the amount of any foreign tax deducted from the dividend before it was paid.

19. SUBSIDIARY COMPANIES

19.1 Any Subsidiary or Jointly Owned Company may with the agreement of the Company become a Participating Company by executing a deed of adherence agreeing to be bound by the Deed and Rules, in such form as may be agreed in advance with HM Revenue & Customs from time to time. However, any Subsidiary or Jointly Owned Company that is an Original Party to this Deed shall be a Participating Company and shall not be required to execute a deed of adherence.

19.2 Any company, which ceases to be a Subsidiary or Jointly Owned Company, shall cease to be a Participating Company.

19.3 The Plan shall cease to apply to any Participating Company, other than the Company, upon issue of a written notice by the Company to the Trustees that the relevant Company shall cease to be a Participating Company.

20. DUTIES OF PARTICIPATING COMPANIES

20.1 If and so long as any company is a Participating Company it shall:

(a) contribute and pay to the Trustees such sums as are required by the Trustees to acquire such Plan Shares as may be necessary or required for the purpose of discharging the Trustees' duties and obligations under the Plan together with that proportion of the sums required to meet the reasonable expenses of the Trustees in operating and administering the Plan in respect of the Qualifying Employees of that Participating Company;

(b) provide the Trustees with all information reasonably required from it for the purposes of the administration and operation of the Plan in such form as the Trustees may reasonably require; and

(c) at all times comply with the Rules.

20.2 Any company, which ceases to be a Participating Company, shall remain liable to meet its fair proportion of the expenses of the Trustees in respect of any period whether or not arising while it was a Participating Company.

20.3 The rights of Participants employed by any company which ceases to be a Participating Company in relation to Plan Shares Awarded to them whilst that Company was a Participating Company shall not be affected.

21. EXPENSES OF PLAN

The Participating Companies shall meet the costs of the preparation and administration of this Plan.

22. TRUSTEES' LIABILITY AND INDEMNITY

22.1 The Participating Companies shall jointly and severally indemnify each of the Trustees (except a remunerated Trustee) against any expenses and liabilities which are incurred through acting as a Trustee of the Plan and which cannot be recovered from the Trust Fund. This does not apply to expenses and liabilities that are incurred through fraud or wilful wrongdoing or are covered by insurance under Clause 22.3.

22.2 No Trustee except a remunerated Trustee shall be personally liable for any breach of trust (other than through fraud or wilful wrongdoing).

22.3 A non-remunerated Trustee may insure the Plan out of the Trust Fund against any loss caused by him or any of his employees, officers, agents or delegates.

23. TRUSTEES POWER OF DELEGATION

23.1 The Trustees may, to the extent permitted by law, delegate any of their powers and duties under the Plan to any person or company. No delegation made under this Clause shall divest the Trustees of their responsibilities under this Deed or under Schedule 2.

23.2 The Trustees may execute and may authorise any of their directors, officers or employees to execute on their behalf any documents in such manner as may be appropriate and not being inconsistent with the terms of the Plan.

24. REMUNERATION OF TRUSTEES

24.1 Any individual Trustee shall be entitled to receive and retain as remuneration for his services hereunder such sum or sums as a Participating Company may from time to time resolve to pay to him therefor notwithstanding that he is also an officer or employee of a Participating Company. Such a person shall not be disqualified from voting or taking part in any decision of the Trustees on any matter by virtue of any personal or beneficial interest (actual or prospective) therein.

24.2 Any Trustee being a solicitor, broker, actuary, accountant, or other person engaged in any profession or business shall be entitled to be paid all usual professional or proper charges for business transacted time expended and acts done by him or by any employee or partner of his firm in connection with the Plan including acts which a Trustee not being in any profession or business could have done personally.

24.3 Any Trustee being a company may charge and be paid such reasonable remuneration or charges as shall from time to time be agreed in writing between the Company and such company. Any such company (being a bank) shall be entitled, subject to the written consent of the Company, to act as banker and perform any services in relation to the Plan on no less favourable terms than would be made with a customer in the ordinary course of its business as a banker without accounting for any resultant profit including, without prejudice to the generality of the foregoing clause, retention of its customary share of brokerage commission.

24.4 Any Trustee may be employed by or be appointed an officer of the Company or any Subsidiary and shall be entitled to keep for his benefit such fees perquisites and remuneration as he may receive by virtue of such position without having to account therefor and whether or not his position might be by virtue of the fact that he is a Trustee.

25. ACCEPTANCE OF GIFTS

The Trustees may accept gifts of Shares and other assets, which shall be held upon the trusts declared by this Deed.

26. TRUSTEES' LIEN

The Trustees' lien over the Trust Fund in respect of liabilities incurred by them in the performance of their duties (including the repayment of borrowed money and tax liabilities) shall be enforceable subject to the following restrictions:

(a) the Trustees shall not be entitled to resort to Partnership Share Money for the satisfaction of any of their liabilities; and

(b) the Trustees shall not be entitled to resort to Plan Shares for the satisfaction of their liabilities except to the extent that this is permitted by the Plan.

27. AMENDMENTS TO THE PLAN

The Company may, with the Trustees' written consent, from time to time amend the Plan provided that

(a) The Company may not make any amendment that would adversely prejudice to a material extent the rights attaching to any Plan Shares awarded to or acquired by Participants.

(b) The Company may not make any alteration that would give to Participating Companies a beneficial interest in Plan Shares.

(c) If the Plan is approved by HM Revenue & Customs at the time of an amendment or addition, any amendment or addition to a **"key feature"** (as defined in paragraph 84(6) of Schedule 2) of the Plan shall not have effect unless and until the approval of HM Revenue & Customs has been obtained.

and, without stockholder approval, no amendment may otherwise be made to Rule 3 or to any other provision if stockholder approval is required by any stock exchange on which the Shares are listed.

28. SUSPENSION OF THE PLAN

The Company may at any time resolve to suspend the operation of the Plan. Any decision to suspend the operation of the Plan will not affect the subsisting rights of Participants.

29. TERMINATION OF THE PLAN

29.1 The Plan shall terminate on the earliest of:

(a) the date on which the Plan is declared to terminate by a Plan Termination Notice issued by the Company to the Trustees under paragraph 89 of Schedule 2, or

(b) if earlier, the expiry of the Trust Period.

29.2 The Company shall without delay upon executing a Plan Termination Notice provide a copy of the notice to the Trustees, HM Revenue & Customs and each individual who has Plan Shares or who has entered into a Partnership Share Agreement which was in force immediately before the Plan Termination Notice was issued.

29.3 Upon the issue of a Plan Termination Notice or upon the expiry of the Trust Period, paragraph 90 of Schedule 2 shall have effect.

29.4 Any Shares or other assets which remain undisposed of after the requirements of paragraph 90 of Schedule 2 have been complied with shall be held by the Trustees upon trust to pay or apply them to or for the benefit of the Participating Companies as at the termination date in such proportion, having regard to their respective contributions, as the Trustees shall in their absolute discretion consider appropriate.

30. EVENTS ON WHICH A PLAN TERMINATION NOTICE MAY BE GIVEN

The Company will issue a Plan Termination Notice on the earliest of the following dates:

(a) on the date when an order for the winding up of the Company is made or a resolution is passed for the voluntary winding up of the Company, or,

(b) on any other date determined at the discretion of the Company.

31. NOTICES

Any notice or other communication under, or in connection with, the Plan may be given by personal delivery sent by e-mail or fax to any e-mail or fax number which according to the records of the Company or Participating Company is used by him, or by sending the same by post, in the case of a company to its registered office, and in the case of an individual to his last known address, or, where he is a director or employee of the Company or a Participating Company, either to his last known address or to the address of the place of business at which he performs the whole or substantially the whole of the duties of his office or employment. Notices sent by email or fax, in the absence of evidence to the contrary, will be deemed to have been received on the day after sending. Where a notice or other communication is given by first-class post, it shall be deemed to have been received by 10am on the second Business Day after it was put into the post properly addressed and stamped. However, notices sent by airmail to a director or employee who is working overseas or by airmail to the Company or a Participating Company with an overseas registered office will be deemed to have been given on the seventh day after posting. If any notice or other communication would otherwise have become effective on a non-Business Day or after 5 p.m. on a Business Day, it shall instead become effective at 10 a.m. on the next Business Day.

32. THIRD PARTY RIGHTS

Any person who is not a party to this Deed shall have no right under the Contracts (Rights of Third Parties) Act 1999 to enforce any term of this Deed. This clause does not affect any right or remedy of any person which exists or is available otherwise than pursuant to that Act.

33. GOVERNING LAW

This Deed shall be governed by and construed in accordance with the laws of England.

34. JURISDICTION

The parties agree that they shall submit to the exclusive jurisdiction of the English courts.

35. CONSTRUCTION OF THIS DEED

The Schedules to this Deed shall be treated as part of this Deed.

36. COUNTERPARTS

This Deed may be executed in any number of counterparts each of which when executed and delivered is an original and all of which together constitute the same document.

SCHEDULE A

THE PLAN RULES

1. DEFINITIONS

1.1 The following words and expressions have the following meanings:

"Accumulation Period" in relation to Partnership Shares, the period during which the Trustees accumulate a Qualifying Employee's Partnership Share Money before acquiring Partnership Shares or repaying it to the employee

"Acquisition Date"

(a) in relation to Partnership Shares, where there is no Accumulation Period, the meaning given by paragraph 50(4) of Schedule 2

(b) in relation to Partnership Shares, where there is an Accumulation Period, the meaning given by paragraph 52(5) of Schedule 2; and

(c) in relation to Dividend Shares, the meaning given by paragraph 66(4) of Schedule 2

"Associated Company" the same meaning as in paragraph 94 of Schedule 2

"Award Date" in relation to Free Shares or Matching Shares, the date on which such Shares are awarded

"Award"

(a) in relation to Free Shares and Matching Shares, the appropriation of Free Shares and Matching Shares in accordance with the Plan; and

(b) in relation to Partnership Shares, the acquisition of Partnership Shares on behalf of Qualifying Employees in accordance with the Plan or, as the case may be, the appropriation of Unawarded Shares already held by the Trustees

"Business Day" any day (other than a Saturday or a Sunday) when clearing banks are open for business in the City of London for the transaction of normal banking business;

"Capital Receipt" the same meaning as in section 502 ITEPA

"Clause" a clause of the Deed

"the Company" The Bank of New York Mellon Corporation (incorporated in the State of Delaware under registration no. 5881587)

"Close Company"	a company that is a close company within the meaning of section 414 of ICTA 1988, but disregarding section 414(1)(a) and section 415 of ICTA 1988
"Connected Company"	the same meaning as in paragraph 18(3) of Schedule 2
"Control"	the same meaning as in section 995 of ITA 2007
"Dealing Day"	a day on which the London Stock Exchange plc (or its successor body) is open for the transaction of business
"Deed"	The Bank of New York Mellon Corporation Stock Accumulation Plan Trust Deed
"Directors"	the board of directors of the Company or a duly authorised committee thereof
"Dividend Shares"	Shares acquired on behalf of a Participant from reinvestment of dividends under Part D of the Plan and which are subject to the Plan
"Employees' Share Scheme"	an employees' share scheme as defined in section 1166 of the Companies Act 2006
"Forfeiture Period"	any period specified by the Company during which Free and Matching Shares may be subject to forfeiture
"Free Share Agreement"	an agreement setting the terms of the Award with respect to an Award of Free Shares in such form as may be approved by HM Revenue & Customs from time to time
"Free Shares"	Shares awarded under Part A of the Plan which are subject to the Plan
"Holding Period"	(a) in relation to Free Shares, the period during which the Participant shall be bound by the terms of the Free Share Agreement specified by the Company as mentioned in Rule 7.16; (b) in relation to Matching Shares, the period during which the Participant shall be bound by the terms of the Partnership Share Agreement specified by the Company as mentioned in Rule 9.5; and (c) in relation to Dividend Shares, the period of three years from the Acquisition Date

"ICTA 1988"	the Income and Corporation Taxes Act 1988
"Initial Market Value"	the Market Value of a Share on an Award Date. Where the Share is subject to a restriction or risk of forfeiture, the market value shall be determined without reference to that restriction or risk
"ITEPA"	the Income Tax (Earnings and Pensions) Act 2003
"IITOIA"	the Income Tax (Trading and Other Income) Act 2005
"ITA 2007"	the Income Tax Act 2007
"Jointly Owned Company"	a company owned by the Company jointly with another person (within the meaning of paragraph 91(5) of Schedule 2) and any company controlled by such jointly owned company, in each case to which HM Revenue & Customs has confirmed the Plan may extend.
"Market Value"	(a) if and for so long as the Shares are admitted to listing on the New York Stock Exchange: (i) if all the Shares acquired for allocation to Participants on an Acquisition Date or Award Date (as applicable) are purchased over 5 or fewer consecutive Dealing Days ending either on that date or on the Dealing Day immediately preceding that date, the average of the prices paid by the Trustees for those Shares; or (ii) in any other case, the closing price of a Share on the New York Stock Exchange on the Dealing Day immediately preceding the Acquisition Date or Award Date (as applicable); (b) if paragraph (a) above does not apply, its market value determined in accordance with Part VIII of the Taxation of Chargeable Gains Act 1992 and agreed for the purposes of the Plan with HM Revenue & Customs Shares Valuation on or before that day
"Matching Shares"	Shares awarded under Part C of the Plan and which are subject to the Plan
"Material Interest"	the same meaning as in paragraph 19 of Schedule 2
"NICs"	National Insurance Contributions

"Participant"	an individual who has received under the Plan an Award of Free Shares, Matching Shares or Partnership Shares, or on whose behalf Dividend Shares have been acquired
"Original Participating Company"	a Participating Company which was an Original Party to the Deed
"Participating Company"	the Company, such Subsidiaries and Jointly Owned Companies which are either Original Parties to the Deed or have executed deeds of adherence to the Plan under Clause 19 of the Deed
"Partnership Share Agreement"	an agreement setting the terms of the Award with respect to an Award of Partnership Shares in such form as may be approved by HM Revenue & Customs from time to time
"Partnership Share Money"	money deducted from a Qualifying Employee's Salary pursuant to a Partnership Share Agreement and held by the Trustees to acquire Partnership Shares or to be returned to such a person
"Partnership Shares"	Shares awarded under Part B of the Plan and which are subject to the Plan
"Performance Criteria "	the criteria which may be used in accordance with Schedule 2 to determine: (a) whether or not Free Shares are awarded; or (b) the number or value of Free Shares to be awarded
"Plan"	The Bank of New York Mellon Corporation Stock Accumulation Plan established under Schedule 2 as constituted by this Deed and Rules in their present form or as amended from time to time in accordance with the provisions hereof
"Plan Shares"	(a) Free Shares, Matching Shares or Partnership Shares awarded to Participants; (b) Dividend Shares acquired on behalf of Participants; and (c) shares in relation to which paragraph 87(2) (company reconstructions: new shares) of Schedule 2 applies and that remain subject to the Plan

"Plan Termination Notice"	a notice to terminate the Plan issued by the Company under paragraph 89 of Schedule 2
"Qualifying Company"	in relation to any individual means: (a) the Company; or (b) a company that when the individual was employed by it was an Associated Company: (i) of the Company; or (ii) of another company qualifying under this paragraph
"Qualifying Corporate Bond"	the same meaning as in section 117 of the Taxation of Chargeable Gains Act 1992
"Qualifying Employee"	an employee who must be invited to participate in an award in accordance with Rule 5.5 and any employee whom the Company has invited in accordance with Rule 5.7
"Qualifying Period"	(a) in the case of Free Shares a period not exceeding 18 months before the Award is made; (b) in the case of Partnership Shares and Matching Shares where there is an Accumulation Period a period not exceeding six months before the start of the Accumulation Period; and (c) in the case of Partnership Shares and Matching Shares where there is no Accumulation Period a period not exceeding 18 months before the deduction of Partnership Share Money relating to the Award
"Qualifying Reason"	A Participant ceases to be in Relevant Employment for a Qualifying Reason if the Participant ceases to be an employee (a) because of injury or disability (b) on being dismissed by reason of Redundancy (c) by reason of a transfer to which the Transfer of Undertakings (Protection of Employment) Regulations 2006 apply

	(d) by reason of a change of control or other circumstances whereby the Participating Company that employs him ceases to be an Associated Company of the Company
	(e) by reason of his retirement before, after or on reaching Retirement Age or
	(f) on his death
"Recognised Exchange"	a recognised stock exchange within the meaning of section 1005 ITA 2007 or a recognised investment exchange within the meaning of the Financial Services and Markets Act 2000
"Redundancy"	the same meaning as in the Employment Rights Act 1996
"Relevant Employment"	employment by the Company or any Associated Company
"Retirement Age"	50
"Rights"	rights conferred in respect of Plan Shares to be allotted, on payment, other shares or securities or rights of any description in the Company
"Rules"	the rules of the Plan set out as in Schedule 1 to the Deed and a reference to a 'Rule' shall be construed accordingly
"Salary"	the same meaning as in paragraph 43(4) of Schedule 2
"Schedule 2"	Schedule 2 to ITEPA
"Shares"	a share of common stock in the capital of The Bank of New York Mellon Corporation which comply with the conditions set out in paragraphs 25 to 33 of Schedule 2
"Subsidiary"	any company which is for the time being under the Control of the Company
"Surplus Assets"	any assets comprised in the Trust Fund other than Unawarded Shares, Plan Shares and Partnership Share Money
"Tax Year"	a year beginning on 6 April and ending on the following 5 April

"Trust Fund"	all assets transferred to the Trustees to be held on the terms of the Deed and the assets from time to time representing such assets, including any accumulations of income
"Trust Period"	the period of 80 years beginning with the date of the Deed
"Trustees"	the trustees or trustee for the time being of the Plan
"Unawarded Shares"	Shares comprised in the Trust Fund that have not been awarded to Participants

1.2 References to any Act, or Part, Chapter, or section (including ICTA 1988, ITEPA, ITTOIA and ITA 2007) shall include any statutory modification, amendment or re-enactment of that Act, for the time being in force.

1.3 Words of the masculine gender shall include the feminine and words in the singular shall include the plural and *vice versa* unless, in either case, the context otherwise requires or it is otherwise stated.

1.4 Headings and subheadings are for ease of reference only and shall not affect the interpretation of any Rule or Clause.

2. PURPOSE OF THE PLAN

The purpose of the Plan is to enable employees of Participating Companies to acquire Shares, which give them a continuing stake in the Company.

3. PLAN SHARES

3.1 No newly issued Shares may be awarded or acquired under the Plan.

4. ADMISSION TO THE PLAN

4.1 For each Award, the Company shall determine whether and to what extent Qualifying Employees shall be invited to apply for Free Shares, Partnership Shares or Matching Shares subject to the terms and conditions of the Deed and these Rules.

4.2 If the Company determines that Qualifying Employees shall be invited to apply then the Company shall also determine:

(a) any Qualifying Period;

(b) whether there shall be an Accumulation Period in respect of any Award of Partnership Shares;

(c) whether there shall be any Performance Criteria in respect of any Award of Free Shares;

(d) the Holding Period in respect of any Award of Free Shares, Matching Shares or Dividend Shares;

(e) maximum and minimum Partnership Share Money deductions;

(f) the maximum number of Shares to be included in an Award of Partnership Shares; and

(g) whether there shall be a Forfeiture Period in respect of any Award of Free or Matching Shares.

5. ELIGIBILITY OF INDIVIDUALS

5.1 Subject to Rule 5.4, individuals are eligible to participate in an Award only if:

(a) they are employees of a Participating Company;

(b) they have been employees of a Qualifying Company at all times during any Qualifying Period;

(c) they are eligible on the date(s) set out in paragraph 14(7) of Schedule 2; and

(d) they do not fail to be eligible under any of Rules 5.2, 5.3 or 5.4.

5.2 Individuals are not eligible to participate in an Award of Shares if they have, or within the preceding twelve months have had, a Material Interest in:

(a) a Close Company whose Shares may be awarded under the Plan; or

(b) a company which has Control of such a company or is a member of a consortium which owns such a company.

5.3 Individuals are not eligible to participate in an Award of Free Shares if in that Tax Year they are to receive at the same time an award under another plan established by the Company or a Connected Company and approved under Schedule 2, or if they would have received such an award but for their failure to meet a performance target (see Rule 7.6).

5.4 Individuals are not eligible to participate in an Award of Partnership Shares or Matching Shares if in that Tax Year they receive at the same time an award under another plan established by the Company or a Connected Company and approved under Schedule 2.

5.5 If an individual participates in an Award of Shares under the Plan in a Tax Year in which they have already received an award under another plan established by the Company or a Connected Company and approved under Schedule 2, Rules 7.4, 8.5, 8.6 and 10.6 apply as if the Plan and any other plan were a single plan.

Employees who must be invited to participate in Awards

5.6 Individuals shall be eligible to receive an Award of Shares under the Plan if they meet the requirements in Rule 5.1 **and** are UK resident taxpayers within the meaning of para 8(2) of Schedule 2.

5.7 In this case, they shall be invited to participate in any Awards of Shares, and acquisition of Dividend Shares, in accordance with the Rules of the Plan.

Employees who may be invited to participate in Awards

5.8 The Company may also invite any employee who meets the requirements in Rule 5.1 to participate in any Award or acquisition of Dividend Shares in accordance with the rules of the Plan.

6. PARTICIPATION ON SAME TERMS

6.1 Every Qualifying Employee shall be invited to participate in an Award on the same terms. All who do participate in an Award shall do so on the same terms.

6.2 The Company may make an Award of Free Shares to Qualifying Employees by reference to their remuneration, length of service or hours worked. However, if the Company makes such an Award by reference to more than one of these factors, it shall do so on the basis that each factor gives rise to a separate entitlement and the total entitlement is the sum of those separate entitlements.

6.3 The Company may make an Award of Free Shares to Qualifying Employees by reference to their performance as set out in Rule 7.6.

PART A

7. FREE SHARES

7.1 Every Qualifying Employee shall make an agreement with the Company (a **"Free Share Agreement"**) in such form as agreed in advance with the Board of HM Revenue & Customs.

7.2 The Trustees, acting with the prior consent of the Company, may from time to time award Free Shares.

7.3 The number of Free Shares to be awarded by the Trustees to each Qualifying Employee on an Award Date shall be determined by the Company in accordance with this Rule.

Maximum annual Award

7.4 The Initial Market Value of the Shares awarded to a Qualifying Employee in any Tax Year shall not exceed £3,000.

Qualifying Period for Award of Free Shares

7.5 The Company may stipulate a Qualifying Period in respect of the Award of Free Shares. Any such Qualifying Period shall be the same for all Qualifying Employees in relation to the same Award, but may be different for different Awards.

Allocation of Free Shares by reference to performance

7.6 The Company may stipulate that the number of Free Shares (if any) to be awarded to each Qualifying Employee on a given Award Date shall be determined by reference to Performance Criteria.

7.7 If Performance Criteria are used, they shall apply to all Qualifying Employees.

7.8 Performance Criteria shall be determined by reference to such fair and objective criteria (performance targets) relating to business results as the Company shall determine over such period as the Company shall specify.

7.9 Performance targets must be set for performance units of one or more employees.

7.10 For the purposes of an Award of Free Shares, an employee must not be a member of more than one performance unit.

7.11 Where the Company decides to use Performance Criteria it shall, as soon as reasonably practicable:

(a) notify each employee participating in the Award of the performance targets and measures which, under the Plan, shall be used to determine the number or value of Free Shares awarded to him; and

(b) notify all Qualifying Employees of any Participating Company, in general terms, of the performance targets and measures to be used to determine the number or value of Free Shares to be awarded to each Participant in the Award.

7.12 The Company shall determine the number of Free Shares (if any) to be awarded to each Qualifying Employee by reference to performance using Method 1 or Method 2 set out below. The same method shall be used for all Qualifying Employees for each Award.

Performance Criteria: method 1

7.13 By this Method:

(a) at least 20% of Free Shares awarded in any performance period shall be awarded without reference to performance;

(b) the remaining Free Shares shall be awarded by reference to performance; and

(c) the highest Award made to an individual by reference to performance in any period shall be no more than four times the highest Award to an individual without reference to performance.

7.14 If this Method is used:

(a) the Free Shares awarded without reference to performance (paragraph (a) above) shall be awarded on the same terms mentioned in Rule 6; and

(b) the Free Shares awarded by reference to performance (paragraph (b) above) need not be allocated on the same terms mentioned in Rule 6.

Performance Criteria: method 2

7.15 By this Method:

(a) some or all Free Shares shall be awarded by reference to performance;

(b) the Award of Free Shares to Qualifying Employees who are members of the same performance unit shall be made on the same terms, as mentioned in Rule 6; and

(c) Free Shares awarded for each performance unit shall be treated as separate Awards.

Holding Period for Free Shares

7.16 The Company shall, in relation to each Award Date, specify a Holding Period throughout which a Participant shall be bound by the terms of the Free Share Agreement.

7.17 The Holding Period shall, in relation to each Award, be a specified period of not less than three years nor more than five years, beginning with the Award Date and shall be the same for all Participants who receive an Award at the same time. The Holding Period shall not be increased in respect of Free Shares already awarded under the Plan.

7.18 A Participant may during the Holding Period direct the Trustees:

(a) to accept an offer for any of his Free Shares if the acceptance or agreement shall result in a new holding being equated with those Shares for the purposes of capital gains tax; or

(b) to accept an offer of a Qualifying Corporate Bond (whether alone or with other assets or cash or both) for his Free Shares if the offer forms part of such a general offer as is mentioned in paragraph (c); or

(c) to accept an offer of cash, with or without other assets, for his Free Shares if the offer forms part of a general offer which is made to holders of Shares of the same class as their Shares, or to holders of Shares in the same company and which is made in the first instance on a condition such that if it is satisfied the person making the offer shall have control of that company, within the meaning of section 416 of ICTA 1988; or

(d) to agree to a transaction affecting their Free Shares or such of them as are of a particular class, if the transaction would be entered into pursuant to a compromise, arrangement or scheme applicable to or affecting;

(i) all of the ordinary share capital of the Company or, as the case may be, all the Shares of the class in question; or

(ii) all the Shares, or all the Shares of the class in question, which are held by a class of shareholders identified otherwise than by reference to their employment or their participation in a plan approved under Schedule 2.

Forfeiture Period for Free Shares

7.19 The Company shall, in relation to each Award Date, determine whether a Forfeiture Period shall apply to the Free Shares. Any Forfeiture Period so determined shall be specified in the Free Share Agreement and shall not be more than three years. If the

Company so determines, then a Participant who ceases to be in Relevant Employment during the Forfeiture Period for a reason that is not a Qualifying Reason shall cease to be beneficially entitled to those Free Shares.

PART B

8. PARTNERSHIP SHARES

8.1 The Company may at any time invite every Qualifying Employee to enter into an agreement with the Company (a **"Partnership Share Agreement"**) in the terms of the draft appended to these Rules, or on such other terms as agreed in advance with HM Revenue & Customs.

8.2 References in Rule 8 to the Trustees acquiring Partnership Shares on behalf of a Participant include their appropriating to a Participant Unawarded Shares already held by them.

8.3 Partnership Shares shall not be subject to any provision under which they may be forfeited.

Qualifying Period

8.4 The Company may stipulate a Qualifying Period in respect of the Award of Partnership Shares. Any such Qualifying Period shall be the same for all Qualifying Employees in relation to the same Award, but may be different for different Awards.

Maximum amount of deductions

8.5 The amount of Partnership Share Money deducted from an employee's Salary shall not exceed £1,500 (or such other amount as may be permitted by Schedule 2 from time to time) in any Tax Year. The Company may set a lower limit under Rule 4.2 (e) (which may be framed in accordance with paragraph (46(4A) of Schedule 2).

8.6 The amount of Partnership Share Money deducted from an employee's Salary for any Tax Year must not exceed 10% of that Participant's Salary for the Tax Year, or any other limit as amended by legislation from time to time.

8.7 Any amount deducted in excess of that allowed by Rule 8.5 or 8.6 shall be paid over to the employee, subject to both deduction of income tax under PAYE and NICs, as soon as practicable.

8.8 A Participant may only be a party to one Partnership Share Agreement authorising one or more deductions from Salary in any given month but Directors may, from time to time, and subject to Rules 8.5 and 8.6, invite all Participants to vary the amount of deductions authorised to be made.

Minimum amount of deductions

8.9 The minimum amount to be deducted under the Partnership Share Agreement on any occasion shall be the same in relation to all Partnership Share Agreements entered into in response to invitations issued on the same occasion. It shall not be greater than £10, or any other limit as amended by legislation from time to time.

Notice of possible effect of deductions on benefit entitlement

8.10 Every Partnership Share Agreement shall contain a notice under paragraph 48 of Schedule 2 in respect of the possible effect of deductions on benefit entitlement on salary related state benefits such as statutory sick pay and maternity pay. the Company shall provide each participant in the Plan with a statement detailing the effects on such benefits of participation in the Plan. HM Revenue & Customs are empowered to make regulations prescribing the form of such a notice.

Restriction imposed on number of Shares awarded

8.11 The Company may specify the maximum number of Shares to be included in an Award of Partnership Shares.

8.12 The Partnership Share Agreement shall contain an undertaking by the Company to notify each Qualifying Employee of any restriction on the number of Shares to be included in an Award.

8.13 The notification in Rule 8.11 above shall be given:

(a) if there is no Accumulation Period, before the deduction of the Partnership Share Money relating to the Award; and

(b) if there is an Accumulation Period, before the beginning of the Accumulation Period relating to the Award.

Plan with no Accumulation Period

8.14 The Trustees shall acquire Shares on behalf of the Qualifying Employee using the Partnership Share Money. They shall acquire the Shares on the Acquisition Date. The number of Shares awarded to each employee shall be determined in accordance with the Market Value of the Shares on that date.

Plan with Accumulation Period

8.15 If there is an Accumulation Period, the Trustees shall acquire Shares on behalf of the Qualifying Employee, on the Acquisition Date, using the Partnership Share Money.

8.16 The number of Shares acquired on behalf of each Participant shall be determined by reference to the lower of:

(a) the Market Value of the Shares at the beginning of the Accumulation Period; and

(b) the Market Value of the Shares on the Acquisition Date.

8.17 All subsisting Accumulation Periods shall immediately come to an end:

(a) with effect from the date specified in a notice to terminate the operation of the Plan given in accordance with clause 29 of the Deed;

(b) if notice is given to shareholders of the Company of a resolution being proposed for the voluntary winding up of the Company;

(c) upon the commencement of a winding up of the Company;

(d) if a general offer is made to acquire the whole of the issued ordinary share capital of the Company which is made on a condition such that if it is satisfied the person making the offer will have control of the Company when that condition is satisfied;

(e) if a general offer is made to acquire all the shares in the Company of the same class as the Shares, when any condition subject to which the offer is made has been satisfied; or

(f) if any person becomes entitled or bound to acquire shares in the Company under sections 979-982 (inclusive) of the Companies Act 2006.

Surplus Partnership Share Money

8.18 Any surplus Partnership Share Money remaining after the acquisition of Shares by the Trustees:

(a) may, with the agreement of the Participant, be carried forward to the next Accumulation Period or deduction, as appropriate; and

(b) in any other case, shall be paid over to the Participant, subject to both deduction of income tax under PAYE and NICs, as soon as practicable.

Scaling down

8.19 If the Company receives applications for Partnership Shares exceeding the Award maximum determined in accordance with Rule 8.11 then the following steps shall be taken in sequence until the excess is eliminated.

Step 1. the excess of the monthly deduction chosen by each applicant over £10 shall be reduced pro rata;

Step 2. all monthly deductions shall be reduced to £10

Step 3. applications shall be selected by lot, each based on a monthly deduction of £10.

8.20 Each application shall be deemed to have been modified or withdrawn in accordance with the foregoing provisions, and each employee who has applied for Partnership Shares shall be notified of the change.

Withdrawal from Partnership Share Agreement

8.21 An employee may withdraw from a Partnership Share Agreement at any time by notice in writing to the Company. Unless a later date is specified in the notice, such a notice shall take effect 30 days after the Company receives it. Any Partnership Share Money then held on behalf of an employee shall be paid over to that employee as soon as practicable. This payment shall be subject to income tax under PAYE and NICs.

8.22 If an employee ceases to be in Relevant Employment during an Accumulation Period, any Partnership Share Money then held on behalf of that employee shall be paid over to that employee as soon as practicable. This payment shall be subject to tax under PAYE and NICs.

8.23 When Partnership Shares have been Awarded to a Participant, the Participant may at any time withdraw any or all of his Partnership Shares from the Plan.

8.24 An employee may at any time give notice in writing to the Company to stop deductions in pursuance of a Partnership Share Agreement. An employee who has stopped deductions may subsequently give notice in writing to the Company to re-start deductions in pursuance of the agreement, but may not make-up deductions that have been missed. Unless a later date is specified in the notice the Company will ensure that within 30 days of receiving the notice no further deductions are made under the Partnership Share Agreement. The Company on receiving a notice to re-start deductions under the Partnership Share Agreement, will do so no later than the re-start date. The re-start date shall be the date of first deduction due under the Partnership Share Agreement which is at least 30 days after the receipt of the notice to re-start the deductions. [An employee may not re-start deductions more than once in any Accumulation Period].

Repayment of Partnership Share Money on withdrawal of approval or Termination

8.25 If approval to the Plan is withdrawn or a Plan Termination Notice is issued in respect of the Plan, any Partnership Share Money held on behalf of employees shall be repaid to them as soon as practicable after notice of withdrawal is given to the Company or after the Plan Termination Notice is notified to the Trustees, as the case may be, subject to deduction of income tax under PAYE and NICs.

8.26 The authority to make deductions from Salary granted by a Participant pursuant to a Partnership Share Agreement shall lapse upon the occurrence of any of the events specified in Rule 8.18 or, if earlier, upon the effective date of a Participant's withdrawal from a Partnership Share Agreement as mentioned in Rules 8.21, 8.22 and 8.24.

PART C

9. MATCHING SHARES

9.1 The Partnership Share Agreement sets out the basis on which a Participant is entitled to Matching Shares in accordance with this Part of the Rules.

General requirements for Matching Shares

9.2 Matching Shares shall:

(a) be Shares of the same class and carrying the same rights as the Partnership Shares to which they relate;

(b) subject to Rule 9.4, be awarded on the same day as the Partnership Shares to which they relate are acquired on behalf of the Participant; and

(c) be awarded to all Participants on exactly the same basis.

Ratio of Matching Shares to Partnership Shares

9.3 The Partnership Share Agreement shall specify the ratio of Matching Shares to Partnership Shares for the time being offered by the Company and that ratio shall not exceed two for one. The Company may vary the ratio before Partnership Shares are acquired. Employees shall be notified of the terms of any such variation before the Partnership Shares are awarded under the Partnership Share Agreement.

9.4 If the Partnership Shares on that day are not sufficient to produce a Matching Share, the match shall be made when sufficient Partnership Shares have been acquired to allow at least one Matching Share to be appropriated.

Holding Period for Matching Shares

9.5 The Company shall, in relation to each Award Date, specify a Holding Period throughout which a Participant shall be bound by the terms of the Partnership Share Agreement.

9.6 The Holding Period shall, in relation to each Award, be a specified period of not less than three years nor more than five years, beginning with the Award Date and shall be the same for all Participants who receive an Award at the same time. The Holding Period shall not be increased in respect of Matching Shares awarded under the Plan.

9.7 A Participant may during the Holding Period direct the Trustees:

(a) to accept an offer for any of his Matching Shares if the acceptance or agreement shall result in a new holding being equated with those original Shares for the purposes of capital gains tax; or

(b) to accept an offer of a Qualifying Corporate Bond (whether alone or with other assets or cash or both) for their Matching Shares if the offer forms part of such a general offer as is mentioned in paragraph (c); or

(c) to accept an offer of cash, with or without other assets, for his Matching Shares if the offer forms part of a general offer which is made to holders of Shares of the same class as their Shares or to the holders of Shares in the same company, and which is made in the first instance on a condition such that if it is satisfied the person making the offer shall have control of that company, within the meaning of section 416 of ICTA 1988; or

(d) to agree to a transaction affecting his Matching Shares or such of them as are of a particular class, if the transaction would be entered into pursuant to a compromise, arrangement or scheme applicable to or affecting;

(i) all of the ordinary share capital of the Company or, as the case may be, all the Shares of the class in question; or

(ii) all the Shares, or all the Shares of the class in question, which are held by a class of shareholders identified otherwise than by reference to their employment or their participation in a plan approved under Schedule 2.

Forfeiture Period for Matching Shares

9.8 The Company shall, in relation to each Award Date, determine whether a Forfeiture Period shall apply to the Matching Shares. Any Forfeiture Period so determined shall be specified in the Partnership Share Agreement and shall not be more than three years. If the Company so determines, then a Participant who ceases to be in Relevant Employment during the Forfeiture Period for a reason that is not a Qualifying Reason shall cease to be beneficially entitled to those Matching Shares. The Company may additionally determine that a Participant who withdraws the Partnership Shares in respect of which the Matching Shares were awarded from the Plan during the Forfeiture Period shall cease to be beneficially entitled to those Matching Shares.

PART D

10. DIVIDEND SHARES

Reinvestment of cash dividends

10.1 The Free Share Agreement or Partnership Share Agreement, as appropriate, shall set out the rights and obligations of Participants receiving Dividend Shares under the Plan.

10.2 The Company may direct that any cash dividend in respect of Plan Shares held on behalf of Participants may be applied in acquiring further Plan Shares on their behalf.

10.3 Dividend Shares shall be Shares:

(a) of the same class and carrying the same rights as the Shares in respect of which the dividend is paid; and

(b) which are not subject to any provision for forfeiture.

10.4 The Company may decide to:

(a) apply all Participants' dividends, up to the limit specified in Rule 10.6, to acquire Dividend Shares;

(b) to pay all dividends in cash to all Participants; or

(c) to offer Participants the choice of either (a) or (b) above.

10.5 The Company may revoke any direction for reinvestment of cash dividends.

10.6 The amount applied by the Trustees in acquiring Dividend Shares shall not exceed £1,500 in each Tax Year.

10.7 If the amounts received by the Trustees exceed the limit in Rule 10.6, the balance shall be paid to the Participant as soon as practicable.

10.8 If dividends are to be applied to acquire Dividend Shares, the Trustees shall apply all the cash dividend to acquire Shares on behalf of the Participant on the Acquisition

Date. The number of Dividend Shares acquired on behalf of each Participant shall be determined by the Market Value of the Shares on the Acquisition Date.

10.9 References in Rule 10 to the Trustees acquiring Dividend Shares on behalf of a Participant include their appropriating to a Participant Unawarded Shares already held by them.

Certain amounts not reinvested to be carried forward

10.10 Subject to Rule 10.7, any amount that is not reinvested:

(a) because the amount of the cash dividend is insufficient to acquire a Share; or

(b) because there is an amount remaining after acquiring the Dividend Shares;

may be retained by the Trustees and carried forward to be added to the amount of the next cash dividend to be reinvested.

10.11 If, during the period of three years beginning with the date on which the dividend was paid:

(a) it is not reinvested; or

(b) the Participant ceases to be in Relevant Employment; or

(c) a Plan Termination Notice is issued

the amount shall be paid to the Participant as soon as practicable. On making such a payment, the Participant shall be provided with the information specified in paragraph 80(4) of Schedule 2.

Holding Period for Dividend Shares

10.12 The Holding Period shall be a period of three years, beginning with the Acquisition Date.

10.13 A Participant may during the Holding Period direct the Trustees:

(a) to accept an offer for any of his Dividend Shares if the acceptance or agreement shall result in a new holding being equated with those Shares for the purposes of capital gains tax; or

(b) to accept an offer of a Qualifying Corporate Bond (whether alone or with other assets or cash or both) for their Dividend Shares if the offer forms part of such a general offer as is mentioned in paragraph (c); or

(c) to accept an offer of cash, with or without other assets, for their Dividend Shares if the offer forms part of a general offer which is made to holders of Shares of the same class as their Shares or to holders of Shares in the same company, and which is made in the first instance on a condition such that if it is satisfied the person making the offer shall have control of that company, within the meaning of section 416 of ICTA 1988; or

(d) to agree to a transaction affecting their Dividend Shares or such of them as are of a particular class, if the transaction would be entered into pursuant to a compromise, arrangement or scheme applicable to or affecting;

(i) all of the ordinary share capital of the Company or, as the case may be, all the shares of the class in question; or

(ii) all the Shares, or all the Shares of the class in question, which are held by a class of shareholders identified otherwise than by reference to their employment or their participation in a plan approved under Schedule 2.

10.14 Where a Participant is charged to tax in the event of their Dividend Shares ceasing to be subject to the Plan, they shall be provided with the information specified in paragraph 80(4) of Schedule 2.

11. COMPANY RECONSTRUCTIONS

11.1 The following provisions of this Rule apply if there occurs in relation to any of a Participant's Plan Shares (referred to in this Rule as **"the Original Holding"**):

(a) a transaction which results in a new holding (referred to in this Rule as **"the New Holding"**) being equated with the Original Holding for the purposes of capital gains tax; or

(b) a transaction which would have that result but for the fact that what would be the new holding consists of or includes a Qualifying Corporate Bond.

11.2 If an issue of shares of any of the following description (in respect of which a charge to income tax arises) is made as part of a company reconstruction, those shares shall be treated for the purposes of this Rule as not forming part of the New Holding:

(a) redeemable shares or securities issued as mentioned in section 209(2)(c) of ICTA 1988;

(b) share capital issued in circumstances such that section 210(1) of ICTA 1988 applies; or

(c) share capital to which section 249 of ICTA 1988 applies.

11.3 In this Rule:

"Corresponding Shares" in relation to any New Shares, means the Shares in respect of which the New Shares are issued or which the New Shares otherwise represent;

"New Shares" means shares comprised in the New Holding which were issued in respect of, or otherwise represent, shares comprised in the Original Holding.

11.4 Subject to the following provisions of this Rule, references in this Plan to a Participant's Plan Shares shall be respectively construed, after the time of the company reconstruction, as being or, as the case may be, as including references to any New Shares.

11.5 For the purposes of the Plan:

(a) a company reconstruction shall be treated as not involving a disposal of Shares comprised in the Original Holding; and

(b) the date on which any New Shares are to be treated as having been appropriated to or acquired on behalf of the Participant shall be that on which Corresponding Shares were so appropriated or acquired.

11.6 In the context of a New Holding, any reference in this Rule to shares includes securities and rights of any description which form part of the New Holding for the purposes of Chapter II of Part IV of the Taxation of Chargeable Gains Act 1992.

12. RIGHTS ISSUES

12.1 Any shares or securities allotted under Clause 14 of the Deed shall be treated as Plan Shares identical to the Shares in respect of which the rights were conferred. They shall be treated as if they were awarded to or acquired on behalf of the Participant under the Plan in the same way and at the same time as those Shares.

12.2 Rule 12.1 does not apply:

(a) to shares and securities allotted as the result of taking up a rights issue where the funds to exercise those rights were obtained otherwise than by virtue of the Trustees disposing of rights in accordance with this Rule; or

(b) where the rights to a share issue attributed to Plan Shares are different from the rights attributed to other ordinary shares of the Company.

13. ALTERATIONS

No modification alteration or amendment to these Rules shall be made except in accordance with Clause 27 of the Deed.

14. DISPUTES

If any matter arises on or in connection with this Plan or its operation for which specific provision is not made in the Rules or in the Deed to which they are scheduled or in any Deed supplemental to it such matter shall be resolved, dealt with or provided for in such manner as the Directors shall in their absolute discretion consider appropriate after taking into account the respective interests of the relevant Participating Company and of the Participants.

IN WITNESS WHEREOF the parties hereto have hereunto executed this Deed as a deed the day and year first above written.

SIGNED as a deed and delivered by

The Bank of New York Mellon Corporation

....

EXECUTED as a deed (but not delivered)
until the date hereof) by)
Newton Investment Management Limited)
acting by:)

.... Director

.... Director/Secretary

EXECUTED as a deed (but not delivered)
until the date hereof) by)
BNY Mellon Asset Management)
International Limited)
acting by:)

....Director

....Director/Secretary

EXECUTED as a deed (but not delivered)
until the date hereof) by)
Pareto Investment Management Limited)
acting by:)

....Director

....Director/Secretary

THE COMMON SEAL of	)
Capita IRG Trustees	)
Limited was hereunto affixed in the	)
in the presence of:	)

.... Director

.... Director/Secretary

SCHEDULE B

THE BANK OF NEW YORK MELLON CORPORATION

STOCK ACCUMULATION PLAN

ORIGINAL PARTICIPATING COMPANIES

Newton Investment Management Limited (registered number 1371973)

BNY Mellon Asset Management International Limited (registered number 1118580)

Pareto Investment Management Limited (registered number 3169281)

EXHIBIT III
THE BANK OF NEW YORK MELLON CORPORATION LONG-TERM INCENTIVE PLAN, AS AMENDED AND RESTATED

EXHIBIT A – THE AMENDED AND RESTATED LONG-TERM INCENTIVE PLAN OF THE BANK OF NEW YORK MELLON CORPORATION

THE BANK OF NEW YORK MELLON CORPORATION
LONG-TERM INCENTIVE PLAN
Amended and Restated through February 24, 2014

I. Purposes

The purposes of this Long-Term Incentive Plan, as amended and restated (the "Plan") are to promote the growth and profitability of The Bank of New York Mellon Corporation (the "Corporation") and its Affiliates, to provide officers, other employees and non-employee directors of the Corporation and its Affiliates with the incentive to achieve long-term corporate objectives, to attract and retain officers, other employees and non-employee directors of outstanding competence, and to provide such individuals with an opportunity to acquire shares of common stock of the Corporation (the "Common Stock") and cash awards. For purposes of the Plan, the term "Affiliate" shall mean any corporation, limited partnership or other organization in which the Corporation owns, directly or indirectly, 50% or more of the voting power.

II. General

2.1 *Administration*.

(a) *Committee Composition*. The Plan shall be administered by a Committee (the "Committee") appointed by the Board of Directors of the Corporation (the "Board"), each member of which shall at the time of any action under the Plan be (1) a "non-employee director" as then defined under Rule 16b-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or any successor rule, (2) an "outside director" as then defined in the regulations under Section 162(m) of the Internal Revenue Code of 1986, as amended (the "Code"), or any successor provision, (3) an "independent" director under the rules of the New York Stock Exchange, and (4) an "independent" director under any other applicable regulatory requirements. Notwithstanding the foregoing, unless otherwise determined by the Board, the Board shall administer the Plan, and otherwise exercise the same authority as the Committee, with respect to grants to members of the Board who are not employees of the Corporation or any Affiliate (the "Non-Employee Directors").

(b) *Authority*. The Committee shall have the authority in its sole discretion from time to time: (i) to designate the individuals eligible to participate in the Plan; (ii) to grant Awards, as hereinafter defined, under the Plan and determine who will receive Awards, when such Awards will be granted and the terms of such Awards, including any limitations, restrictions and conditions upon any such Award and provisions with regard to termination of employment or service as a Non-Employee Director, such as termination due to normal or early retirement, death, disability, sale of a business unit or Subsidiary or a change in control or in the event of an involuntary termination; and (iii) to interpret the Plan, to adopt, amend and rescind rules and regulations relating to the Plan, and to make all other determinations and take all other action necessary or advisable for the implementation and administration of the Plan. A majority of the Committee shall constitute a quorum, and the action of a majority of members of the Committee present at any meeting at which a quorum is present, or acts unanimously adopted in writing without the holding of a meeting, shall be the acts of the Committee.

(c) *Binding Action*. All actions of the Committee shall be final, conclusive and binding upon all persons. No member of the Committee shall be liable for any action taken or decision made in good faith relating to the Plan or any Award thereunder.

(d) *Delegation*. To the extent permitted by applicable law, the Committee may delegate, within limits it may establish from time to time, the authority to grant awards to employees who are not subject to Section 16 of the Exchange Act and who are not "covered employees," as defined in Section 162(m) of the Code.

2.2 *Eligibility*. The Committee may grant Awards under the Plan to any employee of the Corporation or any of its affiliates (or to a former employee if such Award is granted within 12 months of termination of employment and with respect to the final year of service). Non-Employee Directors shall also be eligible to be granted Awards other than incentive stock options. Eligible employees and Non-Employee Directors are collectively referred to herein as "Participants".

Subject to the provisions of the Plan, the Committee shall have full and final authority, in its discretion, to grant Awards as described herein and to determine the Participants to whom any such grant shall be made and the number of shares or value to be covered thereby. In determining the eligibility of any Participant, as well as in determining the number of shares or value covered by each Award, the Committee shall consider the position and the responsibilities of the Participant being considered, the nature and value to the Corporation or an Affiliate of his or her services, his or her present and/or potential contribution to the success of the Corporation or an Affiliate and such other factors as the Committee may deem relevant.

2.3 *Awards.*

(a) *Available Awards.* Awards under the Plan may consist of: stock options ("Options") (either incentive stock options within the meaning of Section 422 of the Code or nonstatutory stock options), stock appreciation rights ("SARs"), restricted stock, restricted stock units, performance share units, deferred stock units, other stock-based awards and cash awards (collectively, "Awards").

(b) *Award Agreements.* Each Award shall be confirmed by an agreement (an "Award Agreement"), in such form as the Committee shall prescribe from time to time in accordance with the Plan.

(c) *Other Plans.* In the discretion of the Committee, shares of Common Stock or other types of Awards authorized under the Plan may be used in connection with, or to satisfy obligations of the Corporation or an Affiliate to eligible Participants under, other compensation or incentive plans, programs or arrangements of the Corporation or an Affiliate. The minimum vesting provisions contained within Sections 4.2 and 5.2 of the Plan shall not apply in the case of an Award that is made to a participant as annual incentive compensation, and may be satisfied by reference to the vesting or performance period of any such other compensation or incentive plan, program or arrangement the obligations of which are satisfied through the use of Awards under the Plan.

2.4 *Shares Available under the Plan.* The aggregate number of shares of Common Stock which may be issued and as to which grants of Awards may be made under the Plan following stockholder approval of the amendment and restatement of the Plan is the sum of (i) the number of Shares available under the Plan immediately prior to stockholder approval of this amendment and restatement (as of February 24, 2014, 18,395,574 shares were available, subject to the counting, adjustment and substitution provisions of the Plan), and (ii) 30,000,000 additional Shares, subject to adjustment and substitution as set forth in Section 9. All of the shares may be granted as incentive stock options, non-qualified stock options or SARs.

Notwithstanding the foregoing, the maximum aggregate number of shares of Common Stock in the first sentence of this Section 2.4 which may be issued in connection with Awards of restricted stock, restricted stock units, performance share units, deferred stock units and other stock-based awards granted following stockholder approval of the amendment and restatement of the Plan, pursuant to which the Participant is not required to pay the Fair Market Value, as hereinafter defined, for the shares of Common Stock represented thereby ("full-value awards"), measured as of the grant date, is the sum of (i) the number of Shares available under the Plan for such full-value awards immediately prior to stockholder approval of this amendment and restatement (as of February 24, 2014, 4,477,708 such shares were available, subject to the counting, adjustment and substitution provisions of the Plan), (ii) the number of shares covering such full-value awards that again become available for issuance under this Section 2.4, and (iii) 30,000,000 additional shares; provided, however, that in the event the full number of shares of Common Stock under this sentence have been used, the Corporation may grant additional full-value awards from the number of additional Shares available under the Plan immediately prior to stockholder approval of this amendment and restatement of the Plan that were eligible to be granted as full-value awards, subject to each full-value Share counting as 2.75 Shares against such remaining available Shares (as of February 24, 2014, 13,917,866 such additional shares were available, subject to the counting, adjustment and substitution provisions of the Plan), which shall continue to be subject to each full-value Share counting as 2.75 Shares.

For purposes of clarification, the total number of shares of Common Stock which may be issued and as to which grants of Awards may be made under the Plan following the amendment and restatement of the Plan, based on the shares available as of February 24, 2014, would be 48,395,574, of which 34,477,708 would be available to be issued in connection with stock-based awards pursuant to which the Participant is not required to pay the Full Market Value on the grant date, and 13,917,866 of which would also be available to be issued in connection with full-value awards, subject to each full-value Share counting as 2.75 Shares against such 13,917,866 shares.

For purposes of this Section 2.4, the number of shares of Common Stock to which an Award relates shall be counted against the number of shares of Common Stock available under the Plan at the time of grant of the Award, provided that tandem Awards shall not be double-counted and Awards payable solely in cash or granted in substitution for awards of an acquired company shall not be counted. If any Award under the Plan is cancelled by mutual consent or terminates or expires for any reason without having been exercised in full, except by reason of the exercise of a tandem Award, or if shares of Common Stock pursuant to an Award are forfeited pursuant to restrictions applicable to the Award, or if payment is made to the Participant in the form of cash, cash equivalents or other property other than shares of Common Stock, the number of shares subject thereto shall again be available for purposes of the Plan. Notwithstanding the foregoing, the following shares of Common Stock shall not become available for purposes of the Plan: (1) shares of Common Stock previously owned or acquired by the Participant that are delivered to the Corporation, or withheld from an Award, to pay the exercise price, (2) shares of Common Stock that are delivered or withheld for purposes of satisfying a tax withholding obligation, or (3) shares of Common Stock reserved for issuance upon the grant of a SAR Award that exceed the number of shares actually issued upon exercise. The shares which may be issued under the Plan may be either authorized but unissued shares or treasury shares or partly each, as shall be determined from time to time by the Board or its delegate.

2.5 *Individual Limitations on Awards.* The maximum aggregate number of shares of Common Stock which shall be available for the grant of Options and SARs to any one individual under the Plan during any calendar year shall be limited to 4,000,000 shares. The maximum number of shares subject to Awards (other than Options and SARs and cash awards) that are intended to qualify as performance-based compensation under Section 162(m) of the Code and may be paid to any one individual based on the achievement of Performance Criteria for any calendar year is 1,000,000 shares or, if such Award is payable in cash, the Fair Market Value equivalent thereof on the first day of the performance period to which such Award relates. The maximum amount payable for cash awards to any one individual based on the achievement of Performance Criteria under the Plan for any one calendar year shall be $10,000,000. In the case of multi-year Performance Periods, as hereinafter defined, the amount which is paid for any one calendar year of the Performance Period is the amount paid for the Performance Period divided by the number of calendar years in the period. The limitations in this Section 2.5 shall be interpreted and applied in a manner consistent with Section 162(m) of the Code.

2.6 *Director Awards.* Aggregate Awards granted to any one Non-Employee Director in respect of any calendar year, solely with respect to his or her service as a member of the Board, may not exceed $1,000,000 based on the aggregate value of cash Awards and Fair Market Value of stock-based Awards, in each case determined as of the grant date.

2.7 *Conditions.* The obligation of the Corporation to issue shares of Common Stock under the Plan shall be subject to (i) the effectiveness of a registration statement under the Securities Act of 1933, as amended, with respect to such shares, if deemed necessary or appropriate by counsel for the Corporation, (ii) the condition that the shares shall have been listed (or authorized for listing upon official notice of issuance) upon each stock exchange, if any, on which the Common Stock may then be listed and (iii) all other applicable laws, regulations, rules and orders which may then be in effect.

2.8 *Forfeiture.* Notwithstanding any other provision of the Plan, any incentive-based compensation otherwise payable or paid to current or former executive officers shall be forfeited and/or repaid to the Corporation as may be required pursuant to applicable regulatory requirements or any company policy and the Committee may determine in its discretion that an Award shall be forfeited and/or shall be repaid to the Corporation upon terms specified including, without limitation, if the Participant directly or indirectly engages in (i) competition with the Corporation or any of its Affiliates or (ii) conduct that is materially adverse to the interests of the Corporation, including fraud or conduct contributing to any financial restatements or irregularities.

2.9 *Deferral of Awards.* Subject to approval and any requirements imposed by the Committee and to the extent permitted under Section 409A of the Code, each Participant may be eligible to defer receipt, under the terms and conditions as may be approved by the Corporation, of part or all of any payments otherwise due under any Award.

III. Stock Options and Stock Appreciation Rights

3.1 *Grant.* The Committee shall have authority, in its discretion, (a) to grant "incentive stock options" pursuant to Section 422 of the Code, (b) to grant "nonstatutory stock options" (*i.e.*, Options which do not qualify under Sections 422 or 423 of the Code), (c) to grant tandem SARs in conjunction with Options and (d) to grant SARs on a stand-alone basis. Tandem SARs may only be granted at the time the related Option is granted. No reload option rights or dividend equivalents may be granted in connection with any Option or SAR.

3.2 *Stock Option Provisions.*

(a) *Option Price.* The purchase price at which each Option may be exercised (the "Option Price") shall be such price as the Committee, in its discretion, shall determine but shall not be less than one hundred percent (100%) of the Fair Market Value per share of the Common Stock covered by the Option on the date of grant.

(b) *Form of Payment.* The Option Price for each Option shall be paid in full upon exercise and shall be payable (i) in cash (including check, bank draft or money order), which may include cash forwarded through a broker or other agent-sponsored exercise or financing program, or (ii) except as otherwise provided in the Award Agreement, in whole or in part by delivering to, or withholding from the Award, shares of Common Stock having a Fair Market Value on the date of exercise of the Option equal to the Option Price for the shares being purchased; except that any portion of the Option Price representing a fraction of a share shall in any event be paid in cash, and delivered shares may be subject to terms and conditions imposed by the Committee. If permitted by the Committee, delivery of shares in payment of the Option Price of an Option may be accomplished by the Participant's certification of ownership of the shares to be delivered, in which case the number of shares issuable on exercise of the Option shall be reduced by the number of shares certified but not actually delivered.

(c) *Limitation on Incentive Stock Options.* The aggregate Fair Market Value, determined on the date of grant, of the shares with respect to which incentive stock options are exercisable for the first time by an employee during any calendar year under all plans of the corporation employing such employee, any parent or subsidiary corporation of such corporation and any predecessor corporation of any such corporation shall not exceed $100,000. To the extent the amount is exceeded, such stock options shall be nonstatutory stock options.

(d) *Exercisability and Term.* Options shall become exercisable at such time or times and/or upon the occurrence of such event or events as may be determined by the Committee. No Option shall be exercisable after the expiration of ten years. To the extent exercisable at any time, Options may be exercised in whole or in part. Each Option shall be subject to earlier termination as provided in the Award Agreement.

3.3 *Stock Appreciation Right Provisions.*

(a) *Price of Stand-Alone SARs.* The base price for stand-alone SARs (the "Base Price") shall be such price as the Committee, in its sole discretion, shall determine but shall not be less than one hundred percent (100%) of the Fair Market Value per share of the Common Stock covered by the stand-alone SAR on the date of grant.

(b) *Payment of SARs.* SARs shall entitle the Participant upon exercise to receive the amount by which the Fair Market Value of a share of Common Stock on the date of exercise exceeds the Option Price of any tandem Option or the Base Price of a stand-alone SAR, multiplied by the number of shares in respect of which the SAR shall have been exercised. In the sole discretion of the Committee, the Corporation may pay all or any part of its obligation arising out of a SAR exercise in cash, shares of Common Stock or any combination thereof. Payment shall be made by the Corporation following exercise.

(c) *Term and Exercise of Stand-Alone SARs.* The term of any stand-alone SAR granted under the Plan shall be for such period as the Committee shall determine, but for not more than ten years from the date of grant thereof. Each stand-alone SAR may be subject to earlier termination as provided in the Award Agreement. Each stand-alone SAR granted under the Plan shall be exercisable on such date or dates during the term thereof and for such number of shares of Common Stock as may be provided in the Award Agreement.

(d) *Term and Exercise of Tandem SARs.* If SARs are granted in tandem with an Option (i) the SARs shall be exercisable at such time or times and to such extent, but only to such extent, that the related Option shall be exercisable, (ii) the exercise of the related Option shall cause a share for share reduction in the number of SARs which were granted in tandem with the Option; and (iii) the payment of SARs shall cause a share for share reduction in the number of shares covered by such Option.

3.4 *Non-Transferability*. No incentive stock option and, except to the extent otherwise determined by the Committee and reflected in the Award Agreement or an amendment thereto, no nonstatutory stock option, SAR or other award shall be transferable by the grantee otherwise than by Will, or if the grantee dies intestate, by the laws of descent and distribution of the state of domicile of the grantee at the time of death; provided, further that awards may not in any event be transferred in exchange for consideration. All incentive stock options and, except to the extent otherwise determined by the Committee and reflected in the Award Agreement or an amendment thereto, all nonstatutory stock options, SARs and other purchase rights shall be exercisable during the lifetime of the grantee only by the grantee.

3.5 *Fair Market Value*. For all purposes under the Plan, the fair market value (the "Fair Market Value") of the Common Stock shall mean the closing price of a share of Common Stock in the New York Stock Exchange Composite Transactions on the relevant date, or, if no sale shall have been made on such exchange on that date, the closing price in the New York Stock Exchange Composite Transactions on the last preceding day on which there was a sale.

3.6 *Miscellaneous*. Subject to the foregoing provisions of this Section and the other provisions of the Plan, any Option or SAR granted under the Plan may be exercised at such times and in such amounts and be subject to such restrictions and other terms and conditions, if any, as shall be determined, in its discretion, by the Committee and set forth in the Award Agreement, or an amendment thereto.

IV. Restricted Stock

4.1 *Award*. The Committee may, subject to the provisions of the Plan and such other terms and conditions as it may prescribe, grant one or more shares of restricted stock to Participants.

4.2 *Restrictions*. Shares of restricted stock issued to a Participant may not be sold, assigned, transferred, pledged, hypothecated or otherwise disposed of, except by will or the laws of descent and distribution, for such period as the Committee shall determine, beginning on the date on which the Award is granted (as applicable to any Award, the "Restricted Period"). The Committee may also impose such other restrictions, limitations and conditions on the shares or the release of the restrictions thereon as it deems appropriate, including the achievement of Performance Goals and/or based upon Performance Criteria, as hereinafter defined, established by the Committee, limitations on the right to vote restricted stock or the right to receive dividends thereon on a current, reinvested and/or restricted basis. In determining the Restricted Period of an Award, the Committee may provide that the foregoing restrictions shall lapse with respect to specified percentages of the awarded shares on specified dates following the date of such Award or all at once. The Restricted Period applicable to restricted stock granted to employees shall, in the case of a time-based restriction, be not less than three years, with no more frequent than ratable vesting over such period or, in the case of a performance-based restriction, be not less than one year; provided, however, that up to the sum of (i) the number of shares not subject to the minimum vesting period immediately prior to stockholder approval of this amendment and restatement of the Plan (as of February 24, 2014, 4,212,779 such shares were available, subject to the counting, adjustment and substitution provisions of the Plan) and (ii) ten percent (10%) of those additional shares available for awards of restricted stock and other awards pursuant to which the Participant is not required to pay the Fair Market Value, applicable following stockholder approval of the amendment and restatement of the Plan as provided in Section 2.4, may be granted as restricted stock with no minimum vesting period.

4.3 *Stock Certificate or Book-Entry*. As soon as practicable following the making of an Award, the restricted stock shall be registered in the Participant's name in certificate or book-entry form. If a certificate is issued, it shall bear an appropriate legend referring to the restrictions and it shall be held by the Corporation on behalf of the Participant until the restrictions are satisfied. If the shares are registered in book-entry form, the restrictions shall be placed on the book-entry registration. Except for the transfer restrictions, and subject to such other restrictions or limitations, if any, as determined by the Committee, the Participant shall have all other rights of a holder of shares of Common Stock, including the right to receive dividends paid with respect to the Restricted Stock and the right to vote such shares. As soon as is practicable following the date on which transfer restrictions on any shares lapse, the Corporation shall deliver to the Participant the certificates for such shares or shall cause the shares to be registered in the Participant's name in book-entry form, in either case with the restrictions removed, provided that the Participant shall have complied with all conditions for delivery of such shares contained in the Award Agreement or otherwise reasonably required by the Corporation.

4.4 *Discretion*. Subject to Section 4.2, the Committee may in its discretion allow restrictions on restricted stock to lapse prior to the date specified in an Award Agreement.

V. Restricted Stock Units

5.1 *Award of Restricted Stock Units*. The Committee may, subject to the provisions of the Plan and such other terms and conditions as it may prescribe, grant restricted stock units to Participants.

5.2 *Restrictions*. The Restricted Period applicable to restricted stock units granted to employees shall, in the case of a time-based restriction, be not less than three years, with no more frequent than ratable vesting over such period or, in the case of a performance-based restriction, be not less than one year; provided, however, that up to the sum of (i) the number of shares not subject to the minimum vesting period immediately prior to stockholder approval of this amendment and restatement of the Plan (as of February 24, 2014, 4,212,779 such shares were available, subject to the counting, adjustment and substitution provisions of the Plan) and (ii) ten percent (10%) of those additional shares available for awards of restricted stock units and other awards pursuant to which the Participant is not required to pay the Fair Market Value, applicable following stockholder approval of the amendment and restatement of the Plan as provided in Section 2.4, may be granted as restricted stock units with no minimum vesting period. The Committee may also impose such other restrictions, limitations and conditions on the restricted stock units or the release of the restrictions thereon as it deems appropriate, including the achievement of Performance Goals and/or based upon Performance Criteria established by the Committee and the right to receive dividend equivalents thereon, on a current, reinvested and/or restricted basis. In determining the Restricted Period of an Award, the Committee may provide that the foregoing restrictions shall lapse with respect to specified percentages of the restricted stock units on specified dates following the date of such Award or all at once.

5.3 *Payment*. During the two and one-half months following the end of the calendar year in which vesting occurs, the Corporation shall pay to the Participant or his estate the number of shares of Common Stock equal to the number of restricted share units vested. Notwithstanding the foregoing sentence, the Committee shall have the authority, in its discretion, to determine that the obligation of the Corporation shall be paid in cash, equal to the number of restricted share units vested multiplied by the Fair Market Value of the share of the Common Stock on such date, or part in cash and part in shares of Common Stock.

VI. Performance Share Units

6.1 *Grant*. The Committee may, subject to the provisions of the Plan and such other terms and conditions as it may prescribe, grant performance share units to Participants. Performance share units shall represent the right of a Participant to receive shares of Common Stock (or their cash equivalent) at a future date upon the achievement of Performance Goals established by the Committee, during a specified performance period (a "Performance Period") of not less than one year. Performance share units may include the right to receive dividend equivalents thereon, on a current, reinvested and/or restricted basis. Except as otherwise expressly provided to the contrary in the applicable Award Agreement, no dividend equivalents will be paid at a time when any performance-based goals that apply to the performance share units have not been satisfied and will revert back to the Corporation if such goals are not satisfied.

6.2 *Terms of Performance Share Units*.

(a) *General*. The provisions of this paragraph (a) shall apply to awards that are intended to qualify under Section 162(m) of the Code. The terms established by the Committee for performance share units that are intended to qualify as performance-based compensation under Section 162(m) of the Code shall be objective such that a third party having knowledge of the relevant facts could determine whether or not any Performance Goal has been achieved, or the extent of such achievement, and the amount, if any, which has been earned by the Participant based on such performance. The Committee may retain the discretion to reduce (but not to increase) the amount or number of performance share units which will be earned based on the achievement of Performance Goals. When the Performance Goals are established, the Committee shall also specify the manner in which the level of achievement of such Performance Goals shall be calculated and the weighting assigned to such Performance Goals. The Committee may determine that unusual items or certain specified events or occurrences, including changes in accounting standards or tax laws, shall be excluded from the calculation to the extent permitted in Section 162(m) of the Code.

(b) *Performance Goals*. "Performance Goals" shall mean goals based upon the achievement of one or more pre-established, objective measures of performance during a specified Performance Period, selected by the Committee in its discretion. Performance Goals may be based upon one or more of the following objective performance measures (the "Performance Criteria") and expressed in either, or a combination of, absolute or relative values or as a percentage of an incentive pool: earnings or earnings per share; book value per share; total return to stockholders; return on equity, assets, capital or investment; pre-tax margins; revenues; expenses; costs; stock price; investment performance of funds or accounts or assets under management; market share; charge-offs; non-performing assets; income; operating, net or pre-tax income; business diversification; operating ratios (including, without limitation, capital ratios, risk-measurement ratios or return on risk-weighted assets) or results; cash flow. Performance Goals based on such Performance Criteria may be based either on the performance of the Corporation, an Affiliate, any branch, department, business unit or other portion thereof under such measure for the Performance Period and/or upon a comparison of such performance with the performance of a peer group of corporations, prior Performance Periods or other measure selected or defined by the Committee at the time of making an Award. The Committee may in its discretion also determine to use other objective performance measures for Performance Goals and/or other terms and conditions even if such Award would not qualify under Section 162(m) of the Code, provided that the Committee identifies the Award as non-qualifying at the time of Award.

(c) *Committee Certification*. Following completion of the applicable Performance Period, and prior to any payment of a performance share unit to the Participant which is intended to qualify under Section 162(m) of the Code, the Committee shall determine in accordance with the terms of the Award and shall certify in writing whether the applicable Performance Goal(s) were achieved, or the level of such achievement, and the amount, if any, earned by the Participant based upon such performance. For this purpose, approved minutes of the meeting of the Committee at which certification is made shall be sufficient to satisfy the requirement of a written certification.

6.3 *Payment*. Payment of performance share units shall be made during the two and one-half months following the end of the calendar year in which vesting occurs. In the sole discretion of the Committee, the Corporation may pay all or any part of its obligation under the performance share unit in cash, shares of Common Stock or any combination thereof.

VII. Deferred Stock Units

7.1 *Award*. The Committee may, subject to the provisions of the Plan and such other terms and conditions as it may prescribe, award deferred stock units to eligible Participants. A deferred stock unit shall entitle the Participant to receive from the Corporation a number of shares of Common Stock on a deferred payment date specified by the Participant. Notwithstanding the foregoing sentence, the Committee shall have the authority, in its discretion, to determine that the obligation of the Corporation shall be paid in cash, shares of Common Stock or any combination thereof.

7.2 *Terms of Deferred Stock Units*. Deferred stock units shall be granted upon such terms as the Committee shall determine, subject to any minimum vesting requirement applicable to restricted stock units. Except as otherwise provided by the Committee, a deferred stock unit shall entitle the Participant to receive dividend equivalents payable no earlier than the date payment is elected for the deferred stock unit. Dividend equivalents shall be calculated on the number of shares covered by the deferred stock unit as soon as practicable after the date dividends are payable on the Common Stock.

VIII. Other Stock-Based Awards and Cash Awards

8.1 *Grant of Other Stock-Based Awards*. The Committee shall have the authority in its discretion to grant to eligible Participants such other Awards that are denominated or payable in, valued in whole or in part by reference to, or otherwise based on or related to, shares of Common Stock as deemed by the Committee to be consistent with the purposes of the Plan, including, without limitation, purchase rights, shares awarded without restrictions or conditions, or securities or other rights convertible or exchangeable into shares of Common Stock. Other stock-based awards, excepting purchase rights, may include the right to receive dividends or dividend equivalents, as the case may be, on a current, reinvested and/or restricted basis.

8.2 *Terms of Other Stock-Based Awards*. The Committee shall determine the terms and conditions, if any, of any other stock-based awards made under the Plan, including the achievement of Performance Goals and/or based upon Performance Criteria, subject to any minimum vesting requirements applicable to restricted stock units or restricted stock, as applicable. Other stock-based awards may be granted alone, in addition to or in tandem with other Awards granted under the Plan and/or awards made outside of the Plan. Shares of Common Stock or securities delivered pursuant to a purchase right granted under this Section 8 shall be purchased for such consideration, paid for by such methods and in such forms, including, without limitation, cash, shares of Common Stock, or other property or any combination thereof, as the Committee shall determine, but the value of such consideration shall not be less than the Fair Market Value of such shares of Common Stock or other securities on the date of grant of such purchase right. The exercise of the purchase right shall not be deemed to occur, and no shares of Common Stock or other securities will be issued by the Corporation upon exercise of a purchase right, until the Corporation has received payment in full of the exercise price.

8.3 *Grant of Cash Awards*. The Committee shall have the authority in its discretion to grant to eligible Participants such cash awards (including, without limitation, non-employee director retainers, leadership, committee and meeting-based fees) as deemed by the Committee to be consistent with the purposes of the Plan. Cash awards granted under the Plan may be in such amounts and subject to such terms and conditions as the Committee may determine.

8.4 *Terms of Cash Awards*. Cash awards (other than non-employee director retainers, leadership, committee and meeting-based fees) granted under the Plan shall be subject to the achievement of Performance Goals and based upon such Performance Criteria set forth in Section 6.2(b) as determined by the Committee, and further subject to the individual limitation provided in Section 2.5. Following completion of the applicable Performance Period, and prior to any payment of a cash award to the Participant which is intended to qualify under Section 162(m) of the Code, the Committee shall determine in accordance with the terms of the Award and shall certify in writing whether the applicable Performance Goal(s) were achieved, or the level of such achievement, and the amount, if any, earned by the Participant based upon such performance. For this purpose, approved minutes of the meeting of the Committee at which certification is made shall be sufficient to satisfy the requirement of a written certification. Except as otherwise expressly provided to the contrary in the applicable Award Agreement, to be entitled to receive payment for a cash award, a Participant must remain in the employment of the Corporation or an Affiliate through the date of payment. Payment of cash awards shall be made during the two and one-half months following the end of the calendar year in which vesting occurs.

IX. Adjustment and Substitution of Shares

In the event of any change in the outstanding Common Stock of the Corporation by reason of a stock split, stock dividend, exchange, combination or reclassification of shares, recapitalization, merger, spin-off, split-off, split-up, dividend in partial liquidation, dividend in property other than cash, extraordinary distribution, similar event or other event which the Committee determines affects the Common Stock such that an adjustment pursuant to Section 9 hereof is appropriate, the Committee shall adjust proportionately: (a) the number of shares of Common Stock (i) available for issuance under the Plan, (ii) available for issuance under incentive stock options, (iii) for which Awards may be granted to an individual Participant, (iv) subject to any sub-limits contained herein and (v) covered by outstanding Awards denominated in stock or units of stock, together with the cash or other property into which the stock may be exchanged; (b) the exercise and grant prices related to outstanding Awards; and (c) the appropriate Fair Market Value and other price determinations for such Awards and (d) the Performance Goals.

In the event of any change affecting the Common Stock or any distribution (other than normal cash dividends) to holders of Common Stock, such adjustments in the number and kind of shares and the exercise, grant and conversion prices of the affected Awards as may be deemed equitable by the Committee, including adjustments to avoid fractional shares, shall be made to give proper effect to such event.

All adjustments shall be made (i) consistent with Section 424 of the Code in the case of incentive stock options, so as not to result in any disqualification, modification, extension or renewal of such incentive stock option, (ii) in a manner compliant with Section 409A of the Code and (iii) in a manner compliant with Section 162(m) of the Code.

X. Additional Rights in Certain Events

10.1 *Change in Control*. "Change in Control" means the occurrence of any one of the following events:

(a) During any period of not more than two (2) years, the Incumbent Directors no longer represent a majority of the Board. "Incumbent Directors" are (A) the members of the Board as of July 1, 2007 and (B) any individual who becomes a director subsequent to July 1, 2007 whose appointment or nomination was approved by at least a majority of the Incumbent Directors then on the Board (either by specific vote or by approval, without prior written notice to the Board objecting to the nomination, of a proxy statement in which the member was named as nominee). However, the Incumbent Directors will not include anyone who becomes a member of the Board after July 1, 2007 as a result of an actual or threatened election contest or proxy or consent solicitation on behalf of anyone other than the Board, including as a result of any appointment, nomination or other agreement intended to avoid or settle a contest or solicitation;

(b) There is a beneficial owner of securities entitled to 30% or more of the total voting power of the Corporation's then-outstanding securities in respect of the election of the Board (the "Voting Securities"), other than (A) the Corporation, any Subsidiary of it or any employee benefit plan or related trust sponsored or maintained by the Corporation or any Subsidiary of it; (B) any underwriter temporarily holding securities pursuant to an offering of them; (C) anyone who becomes a beneficial owner of that percentage of Voting Securities as a result of an Excluded Transaction (as defined in Section 10.1(c)); or (D) anyone who becomes a beneficial owner of that percentage of Voting Securities as a result of a transaction in which Voting Securities are acquired from the Corporation, if the transaction is approved by a majority of the Incumbent Directors in a resolution that expressly states that the transaction is not a Change in Control under this Section 10.1(b); or

(c) Consummation of a merger, consolidation, statutory share exchange or similar transaction (including an exchange offer combined with a merger or consolidation) involving the Corporation (a "Reorganization") or a sale, lease or other disposition (including by way of a series of transactions or by way of merger, consolidation, stock sale or similar transaction involving one or more subsidiaries) of all or substantially all of the Corporation's consolidated assets (a "Sale") other than an Excluded Transaction. A Reorganization or Sale is an "Excluded Transaction" if immediately following it: (A) 50% or more of the total voting power of the Surviving Corporation's then-outstanding securities in respect of the election of directors (or similar officials in the case of a non-corporation) is represented by Voting Securities outstanding immediately before the Reorganization or Sale or by securities into which such Voting Securities were converted in the Reorganization or Sale; (B) there is no beneficial owner of securities entitled to

30% or more of the total voting power of the then-outstanding securities of the Surviving Corporation in respect of the election of directors (or similar officials in the case of a non-corporation); and (C) a majority of the board of directors of the Surviving Corporation (or similar officials in the case of a non-corporation) were Incumbent Directors at the time the Board approved the execution of the initial agreement providing for the Reorganization or Sale. The "Surviving Corporation" means in a Reorganization, the entity resulting from the Reorganization or in a Sale, the entity that has acquired all or substantially all of the assets of the Corporation, except that, if there is a beneficial owner of securities entitled to 95% of the total voting power (in respect of the election of directors or similar officials in the case of a non-corporation) of the then-outstanding securities of the entity that would otherwise be the Surviving Corporation, then that beneficial owner will be the Surviving Corporation.

(d) the stockholders of the Corporation approve a plan of complete liquidation or dissolution of the Corporation.

For purposes of this Plan, "Subsidiary" means any corporation or other entity in which the Corporation has a direct or indirect ownership interest of 50% or more of the total combined voting power of the then outstanding securities or interests of such corporation or other entity entitled to vote generally in the election of directors (or members of any similar governing body) or in which the Corporation has the right to receive 50% or more of the distribution of profits or 50% of the assets or liquidation or dissolution.

10.2 *Lapse of Restrictions on Awards*. Except as otherwise expressly provided to the contrary in an Award Agreement, in the event the employment or service of a Participant is terminated by the Corporation and its Affiliates without Cause within two years after the occurrence of a Change in Control, his or her Options, SARs, restricted stock, restricted stock units, deferred stock units and other stock-based awards shall fully vest and, to the extent subject to an exercise right, may be exercised within one year after the date such termination occurred; provided, however, that if the awards are subject to Section 409A of the Code and the Change in Control is not a change in ownership or effective control of the Corporation or a change in the ownership of a substantial portion of the assets of the Corporation under Section 409A of the Code (a "409A Change in Control"), the Options, SARs, restricted stock units, deferred stock units and other stock-based awards shall remain payable on the date(s) provided in the underlying Award Agreement and provisions of the Plan. For purposes of this paragraph, "Cause" shall have the same meaning as set forth in the Participant's Award Agreement.

10.3 *Deemed Achievement of Performance Goals.* Except as otherwise expressly provided to the contrary in an Award Agreement, if any Change in Control occurs prior to the end of any Performance Period, all Performance Criteria and other conditions pertaining to performance share units, cash awards and other Awards under which payments are subject to Performance Goals shall be deemed to be achieved or fulfilled on a pro-rata basis for (i) the number of whole months elapsed from the commencement of the Performance Period through the Change in Control over (ii) the number of whole months included in the original Performance Period, measured at the actual performance level achieved or, if not determinable, in the manner specified by the Committee. If the awards are subject to Section 409A of the Code and the Change in Control is not a 409A Change in Control, such Awards shall remain payable on the date(s) provided in the underlying Award Agreement and provisions of the Plan.

10.4 *Limitation.* Notwithstanding the foregoing Sections 10.2 and 10.3, the Committee may condition the extension of exercise periods, lapse of restrictions and/or deemed achievement of Performance Goals upon the occurrence of a 409A Change in Control.

XI. Effect of the Plan on the Rights of Participants and the Corporation

Neither the adoption of the Plan nor any action of the Board or the Committee pursuant to the Plan shall be deemed to give any employee or Non-Employee Director any right to be granted any Award under the Plan. Nothing in the Plan, in any Award under the Plan or in any Award Agreement shall confer any right to any employee to continue in the employ of the Corporation or any Affiliate or any Non-Employee Director to continue as a Non-Employee Director or interfere in any way with the rights of the Corporation or any Affiliate to terminate the employment of any employee at any time or with the rights of the stockholders of the Corporation or the Board to elect and remove Non-Employee Directors. All grants of Awards and delivery of shares, cash or other property under an Award granted under the Plan shall constitute a special discretionary incentive payment to the Participant and shall not be required to be taken into account in computing the amount of salary or compensation of the Participant for the purpose of determining any contributions to or any benefits under any pension, retirement, profit-sharing, bonus, life insurance, severance or other benefit plan of the Corporation or under any agreement with the Participant unless specifically provided otherwise in the Award or underlying Plan, arrangement or agreement. Subject to the requirements of Section 409A of the Code, the Corporation shall have the right to offset against its obligation to pay or deliver shares pursuant to an Award to any Participant, any outstanding amounts such Participant then owes to the Corporation and any amounts the Committee otherwise deems appropriate pursuant to any tax equalization policy or agreement. Except as otherwise provided in an Award Agreement, neither this Plan nor any Award Agreement shall confer on any person other than the Corporation or a Participant any rights or remedies hereunder.

XII. Amendment

The right to amend the Plan at any time and from time to time and the right to revoke or terminate the Plan are hereby specifically reserved to the Board; provided that no amendment of the Plan shall be made without stockholder approval (1) if the effect of the amendment is (a) to make any changes in the class of employees eligible to receive incentive stock options under the Plan, (b) to increase the number of shares subject to the Plan or with respect to which incentive stock options may be granted under the Plan or (2) if stockholder approval of the amendment is at the time required (a) by the rules of any stock exchange on which the Common Stock may then be listed or (b) for Options, SARs, performance share units, cash awards or other Awards based upon Performance Goals granted under the Plan to qualify as "performance based compensation" as then defined in the regulations under Section 162(m) of the Code. No alteration, amendment, revocation or termination of the Plan shall, without the written consent of the holder of an outstanding Award under the Plan, adversely affect the rights of such holder with respect thereto; except that the Board may amend this Plan from time to time without the consent of any Participant to the extent deemed necessary or appropriate, in its sole discretion, to effect compliance with Section 409A of the Code, including regulations and interpretations thereunder, which amendments may result in a reduction of benefits provided hereunder and/or other unfavorable changes to the Participant. Except as provided in Section 9 of the Plan, repricing of Options, SARs and other purchase rights is prohibited, such that the purchase price of any such award may not be reduced, whether through amendment, cancellation or replacement in exchange for another Option, SAR, other Award or cash payment, unless such action or reduction is approved by the stockholders of the Corporation.

XIII. Effective Date and Duration of Plan

The effective date and date of adoption of the Plan as amended and restated shall be February 24, 2014, provided that the adoption of the Plan by the Board is approved by a majority of the votes cast at a duly held meeting of stockholders held on or prior to February 23, 2015 at which a quorum representing a majority of the outstanding voting stock of the Corporation is, either in person or by proxy, present and voting. No Option or SARs may be granted and no restricted stock, restricted stock units, performance share units, deferred stock units or other stock-based awards may be awarded under the Plan subsequent to February 24, 2024. Absent additional stockholder approval, no performance share unit award or other Award based upon Performance Criteria and intended to qualify under Section 162(m) of the Code may be granted under the Plan subsequent to the Corporation's annual meeting of stockholders in 2019.

XIV. Withholding

To the extent required by applicable Federal, state, local or foreign law, the Participant or his successor shall make arrangements satisfactory to the Corporation, in its discretion, for the satisfaction of any withholding tax obligations that arise in connection with an award. The Corporation shall not be required to issue any shares of Common Stock or make any cash or other payment under the Plan until such obligations are satisfied.

The Corporation is authorized to withhold from any Award granted or any payment due under the Plan, including from a distribution of shares of Common Stock, amounts of withholding taxes due with respect to an Award, its exercise or any payment thereunder, and to take such other action as the Committee may deem necessary or advisable to enable the Corporation and Participants to satisfy obligations for the payment of such taxes. This authority shall include authority to withhold or receive shares of Common Stock or other property, to make cash payments in respect thereof in satisfaction of such tax obligations, and the ability to restrict withholding to statutory minimum amounts where necessary or applicable to avoid adverse accounting treatment.

XV. Miscellaneous

15.1 *Governing Law.* The validity, interpretation, construction and effect of the Plan and any rules and regulations relating to the Plan shall be governed by the laws of the State of New York (without regard to the conflicts of laws thereof), and applicable Federal law.

15.2 *Foreign Plan Requirements.* To the extent the Committee deems it necessary, appropriate or desirable to comply with foreign law or practices and to further the purpose of the Plan, the Committee may, without amending this Plan, establish special rules and/or sub-plans applicable to awards granted to Participants who are foreign nationals, are employed outside the United States, or both, and may grant awards to such Participants in accordance with those rules. In the event that the payment amount is calculated in a foreign currency, the payment amount will be converted to U.S. dollars using the prevailing exchange rate published in The Wall Street Journal (or in such other reliable publication as the Committee, in its discretion, may determine to rely on) on the relevant date.

15.3 *Section 409A.* The intent of the parties is that payments under the Plan will comply with Section 409A of the Code to the extent subject thereto or an exemption therefrom and, accordingly, to the maximum extent permitted the Plan shall be interpreted and administered to be in compliance therewith. Any payments provided under the Plan that are payable within the short-term deferral period as defined in Section 409A of the Code shall not be treated as deferred compensation unless otherwise required by applicable law. Without limiting the generality of the foregoing, to the extent a Participant would otherwise be entitled to any payment under this Plan, or any plan or arrangement of the Corporation or its affiliates, that constitutes "deferred compensation" subject to Section 409A: (i) references to termination of the Participant's employment will mean the Participant's separation from service with the Corporation or one of its Affiliates within the meaning of Section 409A; (ii) any payment to be made with respect to such Award, that if paid or provided during the six months beginning on the date of termination of a Participant's employment would be subject to the Section 409A additional tax because the Participant is a "specified employee" (within the meaning of Section 409A and as determined by the Corporation) will be paid (or will commence being paid, if applicable) to the Participant on the earlier of the six month anniversary of the Participant's date of termination or the Participant's death; (iii) to the extent an Award includes a "series of installment payments" (within the meaning of Section 1.409A-2(b)(2)(iii) of the regulations promulgated under the Code), the Participant's right to the series of installment payments shall be treated as a right to a series of separate payments and not as a right to a single payment, (iv) if the Award includes "dividend equivalents" (within the meaning of Section 1.409A-3(e) of the regulations promulgated under the Code), the Participant's right to the dividend equivalents shall be treated separately from the right to other amounts under the Award; and (v) to the extent necessary to comply with Section 409A, any other securities, other Awards or other property that the Corporation or one of its Affiliates may deliver in lieu of shares of Common Stock in respect of an Award shall not have the effect of deferring delivery or payment beyond the date on which such delivery or payment would occur with respect to the shares of Common Stock that would otherwise have been deliverable (unless the Committee elects a later date for this purpose in accordance with the requirements of Section 409A).

15.4 *No Liability With Respect to Tax Qualification or Adverse Tax Treatment.* Notwithstanding any other provision of the Plan, in no event shall the Corporation or any of its Affiliates be liable to a Participant on account of an Award's failure to (i) qualify for favorable United States or foreign tax treatment of (ii) avoid adverse tax treatment under United States or foreign law, including, without limitation, Section 409A of the Code.

15.5 *Choice of Forum*

(a) Unless otherwise specified in an Award Agreement, it shall be a condition of each Award that the Corporation and the Participant irrevocably submit to the exclusive jurisdiction of any state or federal court located in New York, New York over any suit, action or proceeding arising out of or relating to or concerning the Plan or the Award. By accepting an Award, the Participant acknowledges that the forum designated by this Section 15.5(a) has a reasonable relation to the Plan, any applicable Award and the Participant's relationship with the Corporation. Notwithstanding the foregoing, nothing herein shall preclude the Corporation from bringing any suit, action or proceeding in any other court for the purpose of enforcing the provisions of this Section 15.5(a) or otherwise.

(b) By accepting an Award, (i) the Participant waives, to the fullest extent permitted by applicable law, any objection which the Participant may have to personal jurisdiction or to the laying of venue of any such suit, action or proceeding in any court referred to in Section 15.5(a), (ii) the Participant undertakes not to commence any action arising out of or relating to or concerning any Award in any forum other than a forum described in this Section 15.5 and (iii) the Participant agrees that, to the fullest extent permitted by applicable law, a final and non-appealable judgment in any such suit, action or proceeding in any such court shall be conclusive and binding upon the Participant and the Corporation.

(c) Unless otherwise specified in an Award Agreement, by accepting an Award, the Participant irrevocably appoints each General Counsel of the Corporation as his or her agent for service of process in connection with any suit, action or proceeding arising out of or relating to or concerning this Plan or any Award, who shall promptly advise the Participant of any such service or process.

(d) Unless otherwise specified in an Award Agreement, by accepting an Award, the Participant agrees to keep confidential the existence of, and any information concerning, a dispute, controversy or claim described in this Section 15.5, except that the Participant may disclose information concerning such dispute, controversy or claim to the court that is considering such dispute, controversy or claim or to his legal counsel (provided that such counsel agrees not to disclose any such information other than as necessary to the prosecution or defense of the dispute, controversy or claim).

EXHIBIT IV
ANNUAL REPORT ON FORM 10-K
FILED BY THE BANK OF NEW YORK MELLON CORPORATION ON FEBRUARY 28, 2018

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

[X] Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the Fiscal Year Ended December 31, 2017
or
[ ] Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Commission File No. 001-35651

THE BANK OF NEW YORK MELLON CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**13-2614959**
(State or other jurisdiction of	*(I.R.S. Employer Identification*
No.) incorporation or organization)	

225 Liberty Street
New York, New York 10286
(Address of principal executive offices)(Zip Code)
Registrant's telephone number, including area code -- (212) 495-1784

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock, $0.01 par value	New York Stock Exchange
Depositary Shares, each representing 1/4,000 th of a share of Series C Noncumulative Perpetual Preferred Stock	New York Stock Exchange
6.244% Fixed-to-Floating Rate Normal Preferred Capital Securities of Mellon Capital IV (Fully and unconditionally guaranteed by The Bank of New York Mellon Corporation)	New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:

Title of each class
None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes þ No o

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No þ

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes þ No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes þ No o

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. þ

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer þ Accelerated filer o
Non-accelerated filer o (Do not check if a smaller reporting company) Smaller reporting company o
Emerging growth company o

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes o No þ

As of June 30, 2017, the aggregate market value of the registrant's common stock, $0.01 par value per share, held by nonaffiliates of the registrant was $52,653,801,981 .

As of January 31, 2018 , 1,009,749,214 shares of the registrant's common stock, $0.01 par value per share, were outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the following documents are incorporated by reference in the following parts of this Form 10-K:
The Bank of New York Mellon Corporation 2018 Proxy Statement-Part III
The Bank of New York Mellon Corporation 2017 Annual Report to Shareholders-Parts I, II and IV

Available Information

This Form 10-K filed by The Bank of New York Mellon Corporation ("BNY Mellon" or the "Company") with the Securities and Exchange Commission (the "SEC") contains the Exhibits listed on the Index to Exhibits beginning on page 14 , including those portions of BNY Mellon's 2017 Annual Report to Shareholders (the "Annual Report"), which are incorporated herein by reference. The Annual Report is, and BNY Mellon's Proxy Statement for its 2018 Annual Meeting (the "Proxy") upon filing with the SEC will be, available on our website at www.bnymellon.com. We also make available on our website, free of charge, the following materials:

- All of our SEC filings, including annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to these reports as soon as reasonably practicable after we electronically file such materials with, or furnish them to, the SEC pursuant to Section 13(a) of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"), and any proxy statement mailed by us in connection with the solicitation of proxies;
- Financial statements and footnotes prepared using eXtensible Business Reporting Language ("XBRL");
- Our earnings materials and selected management conference calls and presentations;
- Other regulatory disclosures, including: Pillar 3 Disclosures (and Market Risk Disclosure contained therein); Liquidity Coverage Ratio Disclosures; Federal Financial Institutions Examination Council - Consolidated Reports of Condition and Income for a Bank With Domestic and Foreign Offices; Consolidated Financial Statements for Bank Holding Companies; and the Dodd-Frank Act Stress Test Results for BNY Mellon and The Bank of New York Mellon; and
- Our Corporate Governance Guidelines, Amended and Restated By-laws, Directors Code of Conduct and the Charters of the Audit, Finance, Corporate Governance and Nominating, Corporate Social Responsibility, Human Resources and Compensation, Risk and Technology Committees of our Board of Directors.

The contents of BNY Mellon's website or any other websites referenced herein are not part of this Form 10-K.

Forward-looking Statements

In this Form 10-K, and other public disclosures of BNY Mellon, words such as "estimate," "forecast," "project," "anticipate," "likely," "target," "expect," "intend," "continue," "seek," "believe," "plan," "goal," "could," "should," "would," "may," "might," "will," "strategy," "synergies," "opportunities," "trends," "future" and words of similar meaning signify forward-looking statements. Some statements in this document are forward-looking. These include all statements about the usefulness of Non-GAAP measures, the future results of BNY Mellon, our businesses, financial, liquidity and capital condition, results of operations, goals, strategies, outlook, objectives, expectations (including those regarding our performance results, regulatory, market, economic or accounting developments, legal proceedings and other contingencies), effective tax rate, estimates (including those regarding capital ratios), intentions (including those regarding our resolution strategy), targets, opportunities and initiatives.

These forward-looking statements, and other forward-looking statements contained in other public disclosures of BNY Mellon (including those incorporated into this Form 10-K), are based on assumptions that involve risks and uncertainties and that are subject to change based on various important factors (some of which are beyond BNY Mellon's control), including those factors described in the Annual Report under "Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") – Risk Factors." Actual results may differ materially from those expressed or implied as a result of a number of factors, including those discussed in the "Risk Factors" section of our Annual Report, such as: a communications or technology disruption or failure that results in a loss of information or impacts our ability to provide services to our clients may materially adversely affect our business, financial condition and results of operations; a cybersecurity incident, or a failure to protect our computer systems, networks and information and our clients' information against cybersecurity threats, could result in a loss of information, adversely impact our ability to conduct our businesses, and damage our reputation and cause losses; our business may be materially adversely affected by operational risk; failure to satisfy regulatory standards, including "well capitalized" and "well managed" status or capital adequacy and liquidity rules more generally, could result in limitations on our activities and adversely affect our business and financial condition; we are subject to extensive government rulemaking, regulation and supervision; these rules and regulations have, and in the future may, compel us to change how we manage our businesses, which could have a material adverse effect on our business, financial condition and results of operations; rules and regulations have increased our compliance and operational risk and costs; our risk management framework may not be effective in mitigating risk and reducing the potential for losses; a failure or circumvention of our controls and procedures could have a material adverse effect on our business, reputation, results of operations and financial condition; if our resolution plan is determined not to be credible or not to facilitate an orderly resolution under the U.S. Bankruptcy Code, our business, reputation, results of operations and financial condition could be materially negatively impacted; the application of our Title I preferred resolution strategy or resolution under the Title II orderly liquidation authority could adversely affect our liquidity and financial condition and our security holders; regulatory or enforcement actions or litigation could materially adversely affect our results of operations or harm our businesses or reputation; our businesses may be negatively affected by adverse events, publicity, government scrutiny or other reputational harm; acts of terrorism, natural disasters, pandemics, global conflicts and other geopolitical events may have a negative impact on our business and operations; we are dependent on fee-based business for a substantial majority of our revenue and our fee-based revenues could be adversely affected by slowing in market activity, weak financial markets, underperformance and/or negative trends in savings rates or in investment preferences; weakness and volatility in financial markets and the economy generally may materially adversely affect our business, results of operations and financial condition; the United Kingdom's referendum decision to leave the EU has had and may continue to have negative effects on global economic conditions, global financial markets, and our business and results of operations; changes in interest rates and yield curves could have a material adverse effect on our profitability; we may experience write-downs of securities that we own and other losses related to volatile and illiquid market conditions, reducing our earnings and impacting our financial condition; ongoing concerns about the financial stability of certain countries, new barriers to global trade or a breakup of the EU or Eurozone could have a material adverse effect on our business and results of operations; our FX revenue may be adversely affected by decreases in market volatility and the cross-border investment activity of our clients; the failure or perceived weakness of any of our significant counterparties, many of whom are major financial institutions and sovereign entities, and our assumption of credit and counterparty risk, could expose us to loss and adversely affect our business; our business, financial condition and results of operations could be adversely affected if we do not effectively manage our liquidity; any material reduction in our credit ratings or the credit ratings of our principal bank subsidiaries, The Bank of New York Mellon or BNY Mellon, N.A., could increase the cost of funding and borrowing to us and our rated subsidiaries and have a material adverse effect on our results of operations and financial condition and on the value of the securities we issue; we could incur losses if our allowance for credit losses, including loan and lending related commitments reserves, is inadequate; new lines of business, new products and services or transformational or strategic project initiatives may subject us to additional risks, and the failure to implement these initiatives could affect our results of operations; we are subject to competition in all aspects of our business, which could negatively affect our ability to maintain or increase our profitability; our business may be adversely affected if we are unable to attract and retain employees; our strategic transactions present risks and uncertainties and could have an adverse effect on our business, results of operations and financial condition; tax law changes, including the recent enactment of the Tax Act, or challenges to our tax positions with respect to historical transactions may adversely affect our net income, effective tax rate and our overall results of operations and financial condition; our ability to return capital to shareholders is subject to the discretion of our board of directors and may be limited by U.S. banking laws and regulations, including those governing capital and the approval of our capital plan, applicable provisions of Delaware law or our failure to pay full and timely dividends on our preferred stock; changes in the method pursuant to which the LIBOR and other benchmark rates are determined could adversely impact our business and results of operations; the Parent is a non-operating holding company, and as a result, is dependent on dividends from its subsidiaries and extensions of credit from its IHC to meet its obligations, including with respect to its securities, and to provide funds for share repurchases and payment of dividends to its stockholders; changes in accounting standards governing the preparation of our financial statements and future events could have a material impact on our reported financial condition, results of operations, cash flows and other financial data.

THE BANK OF NEW YORK MELLON CORPORATION

FORM 10-K INDEX

PART I

PART II

PART III

PART IV

ITEM 1. BUSINESS

Description of Business

The Bank of New York Mellon Corporation, a Delaware corporation (NYSE symbol: BK), is a global company headquartered in New York, New York, with $33.3 trillion in assets under custody and/or administration and $1.9 trillion in assets under management as of Dec. 31, 2017 . With its subsidiaries, BNY Mellon has been in business since 1784.

We divide our businesses into two business segments, Investment Management and Investment Services. We also have an Other segment, which includes the leasing portfolio, corporate treasury activities (including our investment securities portfolio), derivatives and other trading activity, corporate and bank-owned life insurance, renewable energy investments and business exits.

For a further discussion of BNY Mellon's products and services, see the "Overview," "Summary of financial highlights," "Fee and other revenue," "Review of businesses" and "International operations" sections in the MD&A section in the Annual Report and Notes 22 and 23 of the Notes to Consolidated Financial Statements in the Annual Report, which portions are incorporated herein by reference. See the "Available Information" section on page 1 of this Form 10-K, which is incorporated herein by reference, for a description of how to access financial and other information regarding BNY Mellon.

Our two principal U.S. banking subsidiaries engage in trust and custody activities, investment management services, banking services and various securities-related activities. Our two principal U.S. banking subsidiaries are:

- The Bank of New York Mellon, a New York state-chartered bank, which houses our Investment Services businesses, including Asset Servicing, Issuer Services, Treasury Services, Broker-Dealer Services, as well as the bank-advised business of Asset Management; and

- BNY Mellon, National Association ("BNY Mellon, N.A."), a national bank, which houses our Wealth Management business.

We have four other U.S. bank and/or trust company subsidiaries concentrating on trust products and services across the United States: The Bank of New York Mellon Trust Company, National Association, BNY Mellon Trust of Delaware, BNY Mellon Investment Servicing Trust Company and BNY Mellon Trust Company of Illinois. Most of our asset management businesses, along with our Pershing businesses, are direct or indirect non-bank subsidiaries of BNY Mellon.

Each of our bank and trust company subsidiaries is subject to regulation by the applicable bank regulatory authority. The deposits of our U.S. banking subsidiaries are insured by the Federal Deposit Insurance Corporation to the extent provided by law.

BNY Mellon's banking subsidiaries outside the United States are subject to regulation by non-U.S. regulatory authorities in addition to the Board of Governors of the Federal Reserve System (the "Federal Reserve"). The Bank of New York Mellon SA/NV ("BNYMSA") is the main banking subsidiary of The Bank of New York Mellon in continental Europe. It is authorized and regulated as a credit institution by the National Bank of Belgium and is also supervised by the European Central Bank. BNYMSA has its principal office in Brussels and branches in Amsterdam, the Netherlands; Dublin, Ireland; Frankfurt, Germany; London, England; the City of Luxembourg, Luxembourg; and Paris, France. BNYMSA's activities are in the Investment Services segment of BNY Mellon with a focus on global custody, asset servicing and collateral management. For additional discussion, see the "MD&A –Supervision and Regulation" section in the Annual Report.

Information on international operations is presented in the "Net interest revenue," "Income taxes," "Review of businesses," "International operations," "Consolidated balance sheet review" and "Supervision and Regulation" sections in the MD&A section in the Annual Report, Notes 4, 5 and 23 of the Notes to Consolidated Financial Statements in the Annual Report and in "MD&A – Risk Factors – Acts of terrorism, natural disasters, pandemics, global conflicts and other geopolitical events may have a negative impact on our business and operations" and "We are subject to extensive government rulemaking, regulation and supervision. These rules and regulations have, and in the future may, compel us to change how we manage our businesses, which could have a material adverse effect on our business, financial condition and results of operations. In addition, these rules and regulations have increased our compliance and operational risk and costs” in the Annual Report, which portions are incorporated herein by reference.

Primary Subsidiaries

Exhibit 21.1 to this Form 10-K presents a list of BNY Mellon’s primary subsidiaries as of Dec. 31, 2017 .

Supervision and Regulation

Information on the supervision and regulation of BNY Mellon can be found in the “MD&A – Supervision and Regulation” section in the Annual Report. That information is incorporated into this item by reference.

Competition

BNY Mellon is subject to competition in all aspects and areas of our business. Our Investment Management business competes with domestic and international asset management firms, hedge funds, investment banking companies and other financial services companies, including trust banks, brokerage firms, and insurance companies, as well as a wide range of technology service providers. Our Investment Services business competes with domestic and international financial services firms that offer custody services, corporate trust services, clearing services, collateral management services, credit services, securities brokerage, foreign exchange services, derivatives, depositary receipt services and cash management services and related products, as well as a wide range of technology service providers, such as financial services data processing firms. Competition is based on a number of factors including, among others, customer service, quality and range of products and services offered, price, reputation, rates, lending limits and customer convenience.

Many of our competitors, with the particular exception of financial holding companies, banks and trust companies, are not subject to regulation as extensive as that described under the “MD&A — Supervision and Regulation” section in the Annual Report and, as a result, may have a competitive advantage over us and our subsidiaries in certain respects.

Many broad-based financial services firms have the ability to offer a wide range of products, from loans, deposit-taking and insurance to brokerage and asset management, which may enhance their competitive position.

As part of our business strategy, we seek to distinguish ourselves from competitors by the level of service we deliver to our clients. We also believe that technological innovation is an important competitive factor, and, for this reason, have made and continue to make substantial investments in this area.

The ability to recover quickly from unexpected events is a competitive factor, and we have devoted significant resources to being able to enhance our resiliency.

For additional discussion regarding competition, see “MD&A — Risk Factors – We are subject to competition in all aspects of our business, which could negatively affect our ability to maintain or increase our profitability” in the Annual Report, which is incorporated herein by reference.

Employees

At Dec. 31, 2017 , BNY Mellon and its subsidiaries had approximately 52,500 full-time employees.

Statistical Disclosures by Bank Holding Companies

I. Distribution of Assets, Liabilities and Stockholders’ Equity; Interest Rates and Interest Differential

Information required by this section of Guide 3 is presented in the Annual Report in the “Net interest revenue” and “Supplemental Information (unaudited) – Rate/volume analysis” sections in the MD&A and in Note 9 of the Notes to Consolidated Financial Statements, which portions are incorporated herein by reference.

II. Investment Portfolio

A. Book Value of Investments;
B. Maturity Distribution and Yields of Investments; and

C. Aggregate Book Value and Market Value of Investments Where Issuer Exceeds 10% of Stockholders' Equity

Information required by these sections of Guide 3 is presented in the Annual Report in the "Net interest revenue" and "Consolidated balance sheet review – Investment securities" sections in the MD&A and in Notes 1 and 4 of the Notes to Consolidated Financial Statements, which portions are incorporated herein by reference.

III. Loan Portfolio

A. Types of Loans; and
B. Maturities and Sensitivities of Loans to Changes in Interest Rates

Information required by these sections of Guide 3 is presented in the Annual Report in the "Consolidated balance sheet review – Loans" section in the MD&A and Notes 1 and 5 of the Notes to Consolidated Financial Statements, which portions are incorporated herein by reference.

C. Risk Elements; and
D. Other Interest-bearing Assets

Information required by these sections of Guide 3 is included in the Annual Report in the "Consolidated balance sheet review – Loans" and "– Nonperforming assets" and "International operations – Cross-border risk" and "– Country risk exposure" sections in the MD&A and Notes 1 and 5 of the Notes to Consolidated Financial Statements, which portions are incorporated herein by reference.

IV. Summary of Loan Loss Experience

Information required by this section of Guide 3 is included in the Annual Report in the "Critical accounting estimates – Allowance for loan losses and allowance for lending-related commitments" section in the MD&A , which portion is incorporated herein by reference, and below.

When losses on specific loans are identified, the portion deemed uncollectible is charged off. The allocation of the reserve for credit losses is presented in the "Consolidated balance sheet review – Asset quality and allowance for credit losses" section in the MD&A , as required by Guide 3, which is incorporated herein by reference.

Further information on our credit policies, the factors that influenced management's judgment in determining the level of the reserve for credit exposure, and the analyses of the reserve for credit exposure are set forth in the Annual Report in the "Risk management – Credit risk" and "Critical accounting estimates" sections in the MD&A and Notes 1 and 5 of the Notes to Consolidated Financial Statements, which portions are incorporated herein by reference.

V. Deposits

Information required by this section of Guide 3 is set forth in the Annual Report in the "Net interest revenue" and "Consolidated balance sheet review – Deposits" sections in the MD&A and in Note 8 of the Notes to Consolidated Financial Statements, which portions are incorporated herein by reference.

VI. Return on Equity and Assets

Information required by this section of Guide 3 is set forth in the Annual Report in the "Financial Summary" section, which is incorporated herein by reference.

VII. Short-Term Borrowings

Information required by this section of Guide 3 is set forth in the Annual Report in the "Consolidated balance sheet review – Short-term borrowings" section in the MD&A , which portion is incorporated herein by reference.

ITEM 1A. RISK FACTORS

The information required by this Item is set forth in the Annual Report under "MD&A – Risk Factors," which portion is incorporated herein by reference.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

We believe that our owned and leased facilities are suitable and adequate for our business needs. At a number of the locations described below, we are not currently occupying all of the space under our control. Where commercially reasonable and to the extent it is not needed for future expansion, we seek to sell, lease or sublease this excess space. The following is a description of our principal properties, which are utilized by all of our business segments, as of Dec. 31, 2017 :

New York area properties
We own our 23-story building located at 101 Barclay Street in downtown Manhattan, and have committed to purchase the land on which that building sits by December 2018. We lease approximately 325,000 square feet of space in an office building located at 225 Liberty Street in downtown Manhattan that currently serves as our corporate headquarters. In 2018, we will be relocating our headquarters to our 101 Barclay Street location with plans to sublease our space at 225 Liberty Street. In addition, we lease approximately 313,000 square feet of space at 200 Park Avenue, approximately 318,000 square feet of space in Brooklyn and approximately 485,000 square feet of space at 95 Christopher Columbus Drive in Jersey City.

Pittsburgh properties
We lease under a long-term, triple net lease the entire 54-story office building at BNY Mellon Center, 500 Grant Street. In addition, we own a 14-story office building located at 500 Ross Street. We hold a lease for approximately 312,000 square feet of space at 525 William Penn Place through the end of 2018.

Boston area properties
We lease approximately 294,000 square feet of space located at One Boston Place, 201 Washington Street. We also lease under a triple net lease the office building located at 135 Santilli Highway in Everett, Massachusetts. Additionally, we lease approximately 304,000 square feet of space at 4400 Computer Drive in Westborough, Massachusetts.

United Kingdom properties
We have a number of leased office locations in London (including approximately 234,000 square feet of space at BNY Mellon Centre at 160-162 Queen Victoria Street and approximately 152,000 square feet of space at The Tower at One Canada Square at Canary Wharf), and leased space totaling 144,000 square feet in Manchester. We have other leased office locations throughout the United Kingdom, including locations in Poole, Leeds, Liverpool and Edinburgh.

Poland properties
We lease 174,000 square feet of space in Swobodna, Wroclaw, Poland.

India properties
We lease approximately 828,000 square feet of space in Pune, India and approximately 915,000 square feet of space in Chennai, India.

Other properties
We also lease (and in a few instances own) office space and other facilities at numerous other locations globally, including properties located in New York, New Jersey, Connecticut, Pennsylvania, Massachusetts, Florida, Delaware, Texas, California, Illinois, Washington and Tennessee; Brussels, Belgium; Wexford, Dublin and Cork, Ireland; Luxembourg; Frankfurt, Germany; Singapore; Hong Kong and Shanghai, China; Seoul, Korea; Tokyo, Japan; Sydney, Australia; and Rio de Janeiro, Brazil.

ITEM 3. LEGAL PROCEEDINGS

The information required by this Item is set forth in the “Legal proceedings” section in Note 20 of the Notes to Consolidated Financial Statements in the Annual Report, which portion is incorporated herein by reference.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is listed on the New York Stock Exchange under the ticker symbol BK. Certain of our depositary shares, each representing 1/4,000 th interest in a share of our Series C noncumulative perpetual preferred stock, are listed on the New York Stock Exchange under the ticker symbol BK PrC. Mellon Capital IV's 6.244% Fixed-to-Floating Rate Normal Preferred Capital Securities are also listed on the New York Stock Exchange under the ticker symbol BK/P. Information relating to the high and low sales prices per share of our common stock and our common stock dividend for each full quarterly period during fiscal years 2016 and 2017 is set forth in the "Selected Quarterly Data" section in the Annual Report, which is incorporated herein by reference. As of Jan. 31, 2018, there were 29,317 holders of record of our common stock.

For additional information about dividends and a discussion of potential regulatory limitations on our receipt of funds from our regulated subsidiaries and our payment of dividends to stockholders, see the "Liquidity and dividends" and "Supervision and Regulation – Capital Planning and Stress Testing—Payment of Dividends, Stock Repurchases and Other Capital Distributions" sections in the MD&A in the Annual Report and Notes 13 and 17 of the Notes to Consolidated Financial Statements in the Annual Report, which portions are incorporated herein by reference.

Additional information about our common stock, including information about share repurchases during the fourth quarter of 2017 and existing Board of Directors authorizations with respect to purchases by us of our common stock and other equity securities is provided in the "Capital – Issuer purchases of equity securities" section of the MD&A in the Annual Report and Note 13 of the Notes to Consolidated Financial Statements in the Annual Report, which portions are incorporated herein by reference. Share repurchases may be made through repurchase plans designed to comply with Rule 10b5-1 and through derivative, accelerated share repurchase and other structured transactions.

ITEM 6. SELECTED FINANCIAL DATA

The information required by this Item is set forth in the "Financial Summary" section and the "Summary of financial highlights" section in the MD&A in the Annual Report and Notes 1, 2 and 3 of the Notes to Consolidated Financial Statements in the Annual Report, which portions are incorporated herein by reference.

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The information required by this Item is set forth in the MD&A and Notes 3, 10, 12, 17, 20 and 21 of the Notes to Consolidated Financial Statements in the Annual Report, which portions are incorporated herein by reference.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The information required by this Item is set forth in the "Critical accounting estimates," "Off-balance sheet arrangements," "Risk management," "Trading activities and risk management" and "Asset/liability management" sections in the MD&A in the Annual Report and "Derivative financial instruments" under Note 1 and Notes 18, 20 and 21 of the Notes to Consolidated Financial Statements in the Annual Report, which portions are incorporated herein by reference.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Reference is made to Item 15 on page 13 hereof for a detailed listing of the items under Exhibits and Financial Statements, which are incorporated herein by reference.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Our management, including the Chief Executive Officer and Chief Financial Officer, with participation by the members of the Disclosure Committee, has responsibility for ensuring that there is an adequate and effective process for establishing, maintaining, and evaluating disclosure controls and procedures that are designed to ensure that information required to be disclosed by us in our SEC reports is timely recorded, processed, summarized and reported and that information required to be disclosed by BNY Mellon is accumulated and communicated to BNY Mellon's management to allow timely decisions regarding the required disclosure. In addition, our ethics hotline can be used by employees and others for the anonymous communication of concerns about financial controls or reporting matters. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives.

As of Dec. 31, 2017 , an evaluation was carried out under the supervision and with the participation of our management, including the Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures as defined in Exchange Act Rule 13a-15(e). Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective.

Changes in Internal Control over Financial Reporting

In the ordinary course of business, we may routinely modify, upgrade or enhance our internal controls and procedures for financial reporting. There have not been any changes in our internal controls over financial reporting as defined in Rule 13a-15(f) of the Exchange Act during the fourth quarter of 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management Report on Internal Control over Financial Reporting and Report of Independent Registered Public Accounting Firm

See "Report of Management on Internal Control Over Financial Reporting" and "Report of Independent Registered Public Accounting Firm" on pages 131 and 132 of the Annual Report, each of which is incorporated herein by reference.

ITEM 9B. OTHER INFORMATION

Not applicable.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information required by this Item is included below and in the Proxy in the following sections: "Section 16(a) Beneficial Ownership Reporting Compliance" under the heading "Additional Information - Information on Stock Ownership;" "Background" under the heading "Item 1 - Election of Directors - Resolution;" "Nominees" under the heading "Item 1 - Election of Directors;" and "Board Meetings and Committee Information - Committees and Committee Charters" and "- Audit Committee" under the heading "Item 1 - Election of Directors - Corporate Governance and Board Information," which are incorporated herein by reference.

CODE OF ETHICS

We have adopted a code of ethics for our employees which we refer to as our Code of Conduct. The Code of Conduct applies to all employees of BNY Mellon or an entity that is more than 50% owned by us, including our Chief Executive Officer (principal executive officer), Chief Financial Officer (principal financial officer) and Controller (principal accounting officer). The Code of Conduct is posted on our website at www.bnymellon.com/ethics/codeofconduct.pdf . We also have a code of ethics for our directors, which we refer to as our Directors' Code of Conduct. The Directors' Code of Conduct applies to all directors of BNY Mellon. The Directors' Code of Conduct is posted on our website at www.bnymellon.com/governance/directorscodeofconduct.pdf . We intend to disclose on our website any amendments to or waivers of the Code of Conduct relating to executive officers (including the officers specified above) and will disclose any amendments to or waivers of the Directors' Code of Conduct relating to our directors.

EXECUTIVE OFFICERS OF THE REGISTRANT

The positions of Chairman of the Board, Chief Executive Officer and President are each held for the year for which the Board of Directors was elected and until the appointment and qualification of a successor or until earlier death, resignation, disqualification or removal. All other executive officers serve at the pleasure of the appointing authority. No executive officer has a family relationship to any other executive officer or director or nominee for director.

Name	Age	Positions and offices
Bridget E. Engle	54	Ms. Engle has served as Senior Executive Vice President and Chief Information Officer of BNY Mellon since June 2017. From April 2015 to March 2017, Ms. Engle served as Bank of America Corporation's Chief Information Officer for Global Commercial Banking and Markets Technology. From 2011 to April 2015, Ms. Engle was Bank of America's Chief Information Officer for Consumer Banking.
Thomas P. (Todd) Gibbons	61	Mr. Gibbons has served as Vice Chairman and Chief Executive Officer of Clearing, Markets and Client Management of BNY Mellon since January 2018 and was Vice Chairman and Chief Financial Officer of BNY Mellon from July 2008 to January 2018.
Mitchell E. Harris	63	Mr. Harris has served as Senior Executive Vice President and Chief Executive Officer of Investment Management of BNY Mellon since February 2016 and was President of Investment Management from May 2011 to February 2016.
Monique R. Herena	47	Ms. Herena has served as Senior Executive Vice President and Chief Human Resources Officer of BNY Mellon since April 2014. From 2013 to April 2014, Ms. Herena served as Senior Vice President Human Resources and Chief Human Resources Officer Global Groups, Functions and Corporate for PepsiCo Inc.
Hani A. Kablawi	49	Mr. Kablawi has served as Senior Executive Vice President and Chairman of EMEA and Chief Executive Officer of Global Asset Servicing of BNY Mellon since January 2018 and was Chief Executive Officer of EMEA Investment Services from July 2016 to January 2018. Mr. Kablawi previously served as Chief Executive Officer of EMEA Asset Servicing from January 2012 to July 2016.

Name	Age	Positions and offices
Kurtis R. Kurimsky	44	Mr. Kurimsky has served as Vice President and Controller of BNY Mellon since July 2015 and was Acting Controller from February 2015 to July 2015. Mr. Kurimsky previously served as Deputy Controller of BNY Mellon from May 2014 to February 2015. From October 2006 to April 2014, Mr. Kurimsky served as a partner in the Financial Services Practice at KPMG LLP.
Francis (Frank) La Salla	54	Mr. La Salla has served as Senior Executive Vice President and Chief Executive Officer of Issuer Services of BNY Mellon since January 2018 and was Chief Executive Officer of Corporate Trust from May 2017 to January 2018. Mr. La Salla previously served as Chief Executive Officer of Global Structured Products and Alternative Investment Services from March 2014 to May 2017. From May 2003 to March 2014, Mr. La Salla was Managing Director at Pershing LLC, a wholly-owned subsidiary of BNY Mellon, where he was Co-Head of Global Client Relationships and Head of Trading Services.
J. Kevin McCarthy	53	Mr. McCarthy has served as Senior Executive Vice President and General Counsel of BNY Mellon since April 2014 and was Senior Deputy General Counsel, with oversight of the legal teams supporting BNY Mellon’s Litigation, Enforcement, Employment Law, Asset Servicing and corporate center functions, from August 2013 to April 2014. From September 2010 to August 2013, Mr. McCarthy served as Deputy General Counsel for the Litigation, Enforcement and Employment Law functions at BNY Mellon.
Michael P. Santomassimo	42	Mr. Santomassimo has served as Senior Executive Vice President and Chief Financial Officer of BNY Mellon since January 2018 and was Chief Financial Officer of Investment Services from July 2016 to January 2018. Mr. Santomassimo served as Chief Financial Officer, Banking, at JPMorgan Chase & Co., which included Investment Banking (Advisory and Equity and Debt Capital Markets) as well as Treasury Services from December 2013 to June 2016 and Chief Financial Officer, Technology & Operations, for the same division at JPMorgan Chase & Co. from December 2012 to December 2013.
Charles W. Scharf	52	Mr. Scharf has served as a director and Chief Executive Officer of BNY Mellon since July 2017. In January 2018, Mr. Scharf became Chairman of BNY Mellon. From October 2012 through December 2016, Mr. Scharf served as director and Chief Executive Officer of Visa Inc.
Douglas H. Shulman	50	Mr. Shulman has served as Senior Executive Vice President and Head of Client Service Delivery since September 2014. From December 2013 to September 2014, Mr. Shulman served as a Senior Advisor at McKinsey & Co. and was a Senior Fellow at Harvard’s Kennedy School Center for Business and Government from 2013 to 2014.
James S. Wiener	50	Mr. Wiener has served as Senior Executive Vice President and Chief Risk Officer of BNY Mellon since November 2014. Mr. Wiener served as a senior partner at Oliver Wyman Group from 2003 to November 2014.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item is included in the Proxy in the following sections: “Director Compensation” under the heading “Item 1 - Election of Directors;” “Compensation Discussion and Analysis” and “Executive Compensation Tables and Other Compensation Disclosure” under the heading “Item 2 - Advisory Vote on Compensation;” “Board Meetings and Committee Information - Committees and Committee Charters” and “- Human Resources and Compensation Committee” under the heading “Item 1 - Election of Directors - Corporate Governance and Board Information,” which are incorporated herein by reference. The information incorporated herein by reference to the section “Report of the HRC Committee” under the heading “Item 2 - Advisory Vote on Compensation - Compensation Discussion and Analysis” is deemed furnished hereunder.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this Item is included in the Proxy in the following sections: “Equity Compensation Plans” and “Information on Stock Ownership” under the heading “Additional Information,” which are incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this Item is included in the Proxy in the following sections: “Business Relationships and Related Party Transactions Policy” under the heading “Additional Information - Other Information;” “Director Independence” under the heading “Item 1 - Election of Directors - Corporate Governance and Board Information;” and “Board Meetings and Committee Information - Committees and Committee Charters,” “- Audit Committee,” “- Corporate Governance and Nominating Committee” and “- Human Resources and Compensation Committee” under the heading “Item 1 - Election of Directors - Corporate Governance and Board Information,” which are incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this Item is included in the Proxy in the following section: “Item 3 – Ratification of KPMG LLP,” which is incorporated herein by reference.

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) The financial statements, schedules and exhibits required for this Form 10-K are incorporated by reference as indicated in the following index. Page numbers refer to pages of the Annual Report for Items (1) and (2) Financial Statements and Schedules.

(3) Exhibits

See (b) below.

(b) The exhibits listed on the Index to Exhibits on pages 14 through 22 hereof are incorporated by reference or filed or furnished herewith in response to this Item.

(c) Other Financial Data

None.

ITEM 16. FORM 10-K SUMMARY

None.

INDEX TO EXHIBITS

Pursuant to the rules and regulations of the SEC, BNY Mellon has filed certain agreements as exhibits to this Form 10-K. These agreements may contain representations and warranties by the parties to such agreements. These representations and warranties have been made solely for the benefit of the other party or parties to such agreements and (i) may have been qualified by disclosures made to such other party or parties, (ii) were made only as of the date of such agreements or such other date(s) as may be specified in such agreements and are subject to more recent developments, which may not be fully reflected in BNY Mellon's public disclosure, (iii) may reflect the allocation of risk among the parties to such agreements and (iv) may apply materiality standards that are different from what may be viewed as material to investors. Accordingly, these representations and warranties may not describe BNY Mellon's actual state of affairs at the date hereof and should not be relied upon.

Exhibit	Description	Method of Filing
3.1	Restated Certificate of Incorporation of The Bank of New York Mellon Corporation.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 000-52710) as filed with the Commission on July 2, 2007, and incorporated herein by reference.
3.2	Certificate of Designations of The Bank of New York Mellon Corporation with respect to Series A Noncumulative Preferred Stock, dated June 15, 2007.	Previously filed as Exhibit 4.1 to the Company's Current Report on Form 8-K (File No. 000-52710) as filed with the Commission on July 5, 2007, and incorporated herein by reference.
3.3	Certificate of Designations of The Bank of New York Mellon Corporation with respect to Series C Noncumulative Perpetual Preferred Stock, dated Sept. 13, 2012.	Previously filed as Exhibit 3.2 to the Company's Registration Statement on Form 8-A12B (File No. 001-35651) as filed with the Commission on Sept. 14, 2012, and incorporated herein by reference.
3.4	Certificate of Designations of The Bank of New York Mellon Corporation with respect to Series D Noncumulative Perpetual Preferred Stock, dated May 16, 2013.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on May 16, 2013, and incorporated herein by reference.
3.5	Certificate of Designations of The Bank of New York Mellon Corporation with respect to Series E Noncumulative Perpetual Preferred Stock, dated April 27, 2015.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on April 28, 2015, and incorporated herein by reference.
3.6	Certificate of Designations of The Bank of New York Mellon Corporation with respect to Series F Noncumulative Perpetual Preferred Stock, dated July 29, 2016.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on Aug. 1, 2016, and incorporated herein by reference.
3.7	Amended and Restated By-Laws of The Bank of New York Mellon Corporation, as amended and restated on July 10, 2007 and subsequently amended on April 14, 2009, Aug. 11, 2009, Feb. 9, 2010, July 2, 2010, Oct. 12, 2010, Oct. 8, 2013, March 5, 2015, Oct. 13, 2015 and Feb. 12, 2018.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on Feb. 13, 2018, and incorporated herein by reference.

Exhibit	Description	Method of Filing
4.1	None of the instruments defining the rights of holders of long-term debt of the Parent or any of its subsidiaries represented long-term debt in excess of 10% of the total assets of the Company as of Dec. 31, 2017. The Company hereby agrees to furnish to the Commission, upon request, a copy of any such instrument.	N/A
10.1 *	The Bank of New York Company, Inc. Excess Contribution Plan as amended through July 10, 1990.	Previously filed as Exhibit 10(b) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 1990, and incorporated herein by reference.
10.2 *	Amendments dated Feb. 23, 1994 and Nov. 9, 1993 to The Bank of New York Company, Inc. Excess Contribution Plan.	Previously filed as Exhibit 10(c) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 1993, and incorporated herein by reference.
10.3 *	Amendment to The Bank of New York Company, Inc. Excess Contribution Plan dated as of Nov. 1, 1995.	Previously filed as Exhibit 10(e) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 1995, and incorporated herein by reference.
10.4 *	Amendment to The Bank of New York Company, Inc. Excess Contribution Plan dated as of Nov. 12, 2002.	Previously filed as Exhibit 10(v) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 2003, and incorporated herein by reference.
10.5 *	Amendment to The Bank of New York Company, Inc. Excess Contribution Plan dated as of Oct. 9, 2006.	Previously filed as Exhibit 10(y) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 2006, and incorporated herein by reference.
10.6 *	The Bank of New York Company, Inc. Excess Benefit Plan as amended through Dec. 8, 1992.	Previously filed as Exhibit 10(d) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 1992, and incorporated herein by reference.
10.7 *	Amendment dated as of Aug. 11, 1994 to The Bank of New York Company, Inc. Excess Benefit Plan.	Previously filed as Exhibit 10(g) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 1994, and incorporated herein by reference.
10.8 *	Amendment dated as of Nov. 1, 1995 to The Bank of New York Company, Inc. Excess Benefit Plan.	Previously filed as Exhibit 10(i) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 1995, and incorporated herein by reference.

Exhibit		Description	Method of Filing
10.9	*	Amendment dated as of July 1, 1996 to The Bank of New York Company, Inc. Excess Benefit Plan.	Previously filed as Exhibit 10(kk) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 1999, and incorporated herein by reference.
10.10	*	The Bank of New York Company, Inc. 2003 Long-Term Incentive Plan.	Previously filed as Exhibit B to The Bank of New York Company, Inc.'s Definitive Proxy Statement (File No. 00106152) dated March 31, 2003, and incorporated herein by reference.
10.11	*	Amendment dated as of Dec. 28, 2005 to the 2003 Long-Term Incentive Plan of The Bank of New York Company, Inc.	Previously filed as Exhibit 10(ee) to The Bank of New York Company, Inc.'s Form 10-K (File No. 001-06152) for the year ended Dec. 31, 2005, and incorporated herein by reference.
10.12	*	Amendment dated as of Oct. 9, 2006 to the 2003 Long-Term Incentive Plan of The Bank of New York Company, Inc.	Previously filed as Exhibit 10(gg) to The Bank of New York Company, Inc.'s Form 10-K (File No. 001-06152) for the year ended Dec. 31, 2006, and incorporated herein by reference.
10.13	*	Amendment dated as of Feb. 21, 2008 to the 2003 Long-Term Incentive Plan of The Bank of New York Company, Inc.	Previously filed as Exhibit 99.1 to the Company's Current Report on Form 8-K (File No. 000-52710) as filed with the Commission on Feb. 27, 2008, and incorporated herein by reference.
10.14	*	The Bank of New York Company, Inc. Supplemental Executive Retirement Plan.	Previously filed as Exhibit 10(n) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 1992, and incorporated herein by reference.
10.15	*	Amendment dated as of March 9, 1993 to The Bank of New York Company, Inc. Supplemental Executive Retirement Plan.	Previously filed as Exhibit 10(k) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 1993, and incorporated herein by reference.
10.16	*	Amendment dated as of Oct. 11, 1994 to The Bank of New York Company, Inc. Supplemental Executive Retirement Plan.	Previously filed as Exhibit 10(o) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 1994, and incorporated herein by reference.
10.17	*	Amendment dated as of July 1, 1996 to The Bank of New York Company, Inc. Supplemental Executive Retirement Plan.	Previously filed as Exhibit 10(a) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 1996, and incorporated herein by reference.
10.18	*	Amendment dated as of Nov. 12, 1996 to The Bank of New York Company, Inc. Supplemental Executive Retirement Plan.	Previously filed as Exhibit 10(b) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 1996, and incorporated herein by reference.

Exhibit	Description	Method of Filing
10.19	* Amendment dated as of July 11, 2000 to The Bank of New York Company, Inc. Supplemental Executive Retirement Plan.	Previously filed as Exhibit 10(e) to The Bank of New York Company, Inc.'s Quarterly Report on Form 10-Q (File No. 001-06152) for the quarter ended Sept. 30, 2000, and incorporated herein by reference.
10.20	* Amendment dated as of Feb. 13, 2001 to The Bank of New York Company, Inc. Supplemental Executive Retirement Plan.	Previously filed as Exhibit 10(ggg) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 2000, and incorporated herein by reference.
10.21	* Amendment dated as of Jan. 1, 2006 to The Bank of New York Company, Inc. Supplemental Executive Retirement Plan.	Previously filed as Exhibit 10(yy) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 2005, and incorporated herein by reference.
10.22	* Deferred Compensation Plan for Non-Employee Directors of The Bank of New York Company, Inc.	Previously filed as Exhibit 10(s) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 1993, and incorporated herein by reference.
10.23	* Amendment dated as of Nov. 8, 1994 to Deferred Compensation Plan for Non-Employee Directors of The Bank of New York Company, Inc.	Previously filed as Exhibit 10(z) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 1994, and incorporated herein by reference.
10.24	* Amendment dated Feb. 11, 1997 to Deferred Compensation Plan for Non-Employee Directors of The Bank of New York Company, Inc.	Previously filed as Exhibit 10(j) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 1996, and incorporated herein by reference.
10.25	* Amendment to Deferred Compensation Plan for Non-Employee Directors of The Bank of New York Company, Inc. dated as of July 11, 2000.	Previously filed as Exhibit 10(d) to The Bank of New York Company, Inc.'s Quarterly Report on Form 10-Q (File No. 001-06152) for the quarter ended Sept. 30, 2000, and incorporated herein by reference.
10.26	* Amendment dated as of Nov. 12, 2002 to Deferred Compensation Plan for Non-Employee Directors of The Bank of New York Company, Inc.	Previously filed as Exhibit 10(yy) to The Bank of New York Company, Inc.'s Annual Report on Form 10-K (File No. 001-06152) for the year ended Dec. 31, 2003, and incorporated herein by reference.
10.27	* Form of Stock Option Agreement under The Bank of New York Company, Inc.'s 2003 Long-Term Incentive Plan.	Previously filed as Exhibit 10.9 to the Company's Quarterly Report on Form 10-Q (File No. 000-52710) for the quarter ended June 30, 2007, and incorporated herein by reference.

Exhibit	Description	Method of Filing
10.28	* Mellon Financial Corporation Director Equity Plan (2006).	Previously filed as Exhibit A to Mellon Financial Corporation's Proxy Statement (File No. 001-07410) dated March 15, 2006, and incorporated herein by reference.
10.29	* The Bank of New York Mellon Corporation Deferred Compensation Plan for Directors, effective Jan. 1, 2008.	Previously filed as Exhibit 10.71 to the Company's Annual Report on Form 10-K (File No. 000-52710) for the year ended Dec. 31, 2007, and incorporated herein by reference.
10.30	* Description regarding team equity incentive awards, replacement equity awards and special stock option award to executives named therein.	Previously filed as Item 5.02 to the Company's Current Report on Form 8-K (File No. 000-52710) as filed with the Commission on July 13, 2007, and incorporated herein by reference.
10.31	Lease dated as of Dec. 29, 2004, between 500 Grant Street Associates Limited Partnership and The Bank of New York Mellon with respect to BNY Mellon Center.	Previously filed as Exhibit 99.1 to Mellon Financial Corporation's Annual Report on Form 10-K (File No. 001-07410) for the year ended Dec. 31, 2004, and incorporated herein by reference.
10.32	* The Bank of New York Mellon Corporation Deferred Compensation Plan for Employees.	Previously filed as Exhibit 4.4 to the Company's Form S-8 (File No. 333-149473) filed on Feb. 29, 2008, and incorporated herein by reference.
10.33	* Form of 2008 Stock Option Agreement between The Bank of New York Mellon Corporation and Gerald L. Hassell.	Previously filed as Exhibit 10.11 to the Company's Quarterly Report on Form 10-Q (File No. 000-52710) for the quarter ended March 31, 2008, and incorporated herein by reference.
10.34	* Form of Long Term Incentive Plan Deferred Stock Unit Agreement for Directors of The Bank of New York Corporation.	Previously filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 000-52710) for the quarter ended June 30, 2008, and incorporated herein by reference.
10.35	* Amendment to The Bank of New York Company, Inc. Supplemental Executive Retirement Plan, dated as of Jan. 1, 2009.	Previously filed as Exhibit 10.156 to the Company's Annual Report on Form 10-K (File No. 000-52710) for the year ended Dec. 31, 2008, and incorporated herein by reference.
10.36	* Amendment to The Bank of New York Company, Inc. Amended and Restated 2003 Long-Term Incentive Plan, dated as of Jan. 1, 2009.	Previously filed as Exhibit 10.157 to the Company's Annual Report on Form 10-K (File No. 000-52710) for the year ended Dec. 31, 2008, and incorporated herein by reference.
10.37	* Amendment to The Bank of New York Company, Inc. Excess Benefit Plan, dated as of Jan. 1, 2009.	Previously filed as Exhibit 10.158 to the Company's Annual Report on Form 10-K (File No. 000-52710) for the year ended Dec. 31, 2008, and incorporated herein by reference.
10.38	* Amendment to The Bank of New York Company, Inc. Excess Contribution Plan, dated as of Jan. 1, 2009.	Previously filed as Exhibit 10.159 to the Company's Annual Report on Form 10-K (File No. 000-52710) for the year ended Dec. 31, 2008, and incorporated herein by reference.

Exhibit	Description	Method of Filing
10.39	* The Bank of New York Mellon Corporation Policy Regarding Shareholder Approval of Future Senior Officers Severance Arrangements, adopted July 12, 2010.	Previously filed as Exhibit 99.3 to the Company's Current Report on Form 8-K (File No. 000-52710) as filed with the Commission on July 16, 2010, and incorporated herein by reference.
10.40	* Form of Executive Stock Option Agreement.	Previously filed as Exhibit 10.135 to the Company's Annual Report on Form 10-K (File No. 000-52710) for the year ended Dec. 31, 2010, and incorporated herein by reference.
10.41	* 2011 Form of Executive Stock Option Agreement.	Previously filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q (File No. 000-52710) for the quarter ended March 31, 2011, and incorporated herein by reference.
10.42	* The Bank of New York Mellon Corporation Long-Term Incentive Plan.	Previously filed as Appendix A to the Company's definitive proxy statement on Schedule 14A (File No. 000-52710) filed on March 11, 2011, and incorporated herein by reference.
10.43	* Amended and Restated Long-Term Incentive Plan of The Bank of New York Mellon Corporation.	Previously filed as Exhibit A to BNY Mellon's definitive proxy statement on Schedule 14A (File No. 001-35651), filed on March 7, 2014, and incorporated herein by reference.
10.44	* Form of Restricted Stock Unit Agreement under the Amended and Restated Long-Term Incentive Plan of The Bank of New York Mellon Corporation.	Previously filed as Exhibit 10.3 to BNY Mellon's Quarterly Report on Form 10-Q (File No. 001-35651) for the quarter ended June 30, 2014, and incorporated herein by reference.
10.45	* Form of Performance Share Unit Agreement under the Amended and Restated Long-Term Incentive Plan of The Bank of New York Mellon Corporation.	Previously filed as Exhibit 10.4 to BNY Mellon's Quarterly Report on Form 10-Q (File No. 001-35651) for the quarter ended June 30, 2014, and incorporated herein by reference.
10.46	* The Bank of New York Mellon Corporation Executive Incentive Compensation Plan.	Previously filed as Appendix B to the Company's definitive proxy statement on Schedule 14A (File No. 000-52710) filed on March 11, 2011, and incorporated herein by reference.
10.47	* 2012 Form of Nonstatutory Stock Option Agreement.	Previously filed as Exhibit 10.82 to the Company's Annual Report on Form 10-K (File No. 001-35651) for the year ended Dec. 31, 2012, and incorporated herein by reference.
10.48	* The Bank of New York Mellon Corporation Defined Contribution IRC 401(a)(17) Plan.	Previously filed as Exhibit 10.84 to the Company's Annual Report on Form 10-K (File No. 001-35651) for the year ended Dec. 31, 2012, and incorporated herein by reference.

Exhibit	Description	Method of Filing
10.49	Lease agreement by and between The Bank of New York Mellon and WFP Tower Co. L.P., dated June 25, 2014.	Previously filed as Exhibit 10.2 to BNY Mellon's Quarterly Report on Form 10-Q (File No. 001-35651) for the quarter ended June 30, 2014, and incorporated herein by reference.
10.50	* Amendment to The Bank of New York Company, Inc. Supplemental Executive Retirement Plan, dated as of Dec. 31, 2014.	Previously filed as Exhibit 10.76 to BNY Mellon's Annual Report on Form 10-K (File No. 001-35651) for the year ended Dec. 31, 2014, and incorporated herein by reference.
10.51	* 2015 Form of Performance Share Unit Agreement.	Previously filed as Exhibit 10.1 to BNY Mellon's Quarterly Report on Form 10-Q (File No. 001-35651) for the quarter ended Sept. 30, 2015, and incorporated herein by reference.
10.52	* 2015 Form of Restricted Share Unit Agreement.	Previously filed as Exhibit 10.2 to BNY Mellon's Quarterly Report on Form 10-Q (File No. 001-35651) for the quarter ended Sept. 30, 2015, and incorporated herein by reference.
10.53	* The Bank of New York Mellon Corporation Defined Contribution IRC 401(a)(17) Plan (as amended and restated).	Previously filed as Exhibit 10.69 to the Company's Annual Report on Form 10-K (File No. 001-35651) for the year ended Dec. 31, 2015, and incorporated herein by reference.
10.54	* Amendment dated as of Dec. 14, 2015 to The Bank of New York Company, Inc. Excess Benefit Plan.	Previously filed as Exhibit 10.70 to the Company's Annual Report on Form 10-K (File No. 001-35651) for the year ended Dec. 31, 2015, and incorporated herein by reference.
10.55	* The Bank of New York Mellon Corporation Executive Severance Plan (as amended effective Feb. 19, 2016).	Previously filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-35651) for the quarter ended March 31, 2016, and incorporated herein by reference.
10.56	* The Bank of New York Mellon Corporation 2016 Executive Incentive Compensation Plan.	Previously filed as Annex B to the Company's definitive Proxy Statement on Schedule 14A filed on March 11, 2016 and incorporated herein by reference.
10.57	* Form of Amended and Restated Indemnification Agreement with Directors of The Bank of New York Mellon Corporation.	Previously filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-35651) for the quarter ended June 30, 2016, and incorporated herein by reference.
10.58	* Form of Amended and Restated Indemnification Agreement with Executive Officers of The Bank of New York Mellon Corporation.	Previously filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q (File No. 001-35651) for the quarter ended June 30, 2016, and incorporated herein by reference.
10.59	* The Bank of New York Mellon Corporation Executive Severance Plan, as amended.	Previously filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-35651) for the quarter ended Sept. 30, 2016, and incorporated herein by reference.

Exhibit	Description	Method of Filing
10.60	* 2016 Form of Restricted Share Unit Agreement.	Previously filed as Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q (File No. 001-35651) for the quarter ended June 30, 2016, and incorporated herein by reference.
10.61	* 2016 Form of Performance Share Unit Agreement.	Previously filed as Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q (File No. 001-35651) for the quarter ended June 30, 2016, and incorporated herein by reference.
10.62	* Letter Agreement, dated July 13, 2017, between The Bank of New York Mellon Corporation and Charles W. Scharf.	Previously filed as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on July 17, 2017, and incorporated herein by reference.
10.63	* 2017 Form of Performance Share Unit Agreement.	Previously filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q (File No. 001-35651) for the quarter ended June 30, 2017, and incorporated herein by reference.
10.64	* 2017 Form of Restricted Share Unit Agreement.	Previously filed as Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q (File No. 001-35651) for the quarter ended June 30, 2017, and incorporated herein by reference.
10.65	* The Bank of New York Mellon Corporation Executive Severance Plan, as amended on Feb. 12, 2018.	Previously filed as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on Feb. 13, 2018, and incorporated herein by reference.
12.1	Computation of Ratio of Earnings to Combined Fixed Charges and Preferred Stock Dividends.	Filed herewith.
13.1	All portions of The Bank of New York Mellon Corporation 2017 Annual Report to Shareholders that are incorporated herein by reference. The remaining portions are furnished for the information of the SEC and are not "filed" as part of this filing.	Filed and furnished herewith.
21.1	Primary subsidiaries of the Company.	Filed herewith.
23.1	Consent of KPMG LLP.	Filed herewith.
24.1	Power of Attorney.	Filed herewith.
31.1	Certification of the Chief Executive Officer pursuant to Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.

Exhibit	Description	Method of Filing
31.2	Certification of the Chief Financial Officer pursuant to Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.
32.1	Certification of the Chief Executive Officer pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished herewith.
32.2	Certification of the Chief Financial Officer pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished herewith.
101.INS	XBRL Instance Document.	Filed herewith.
101.SCH	XBRL Taxonomy Extension Schema Document.	Filed herewith.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.	Filed herewith.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.	Filed herewith.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.	Filed herewith.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.	Filed herewith.

* Management contract or compensatory plan arrangement.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, BNY Mellon has duly caused this Annual Report to be signed on its behalf by the undersigned, thereunto duly authorized.

The Bank of New York Mellon Corporation

By: /s/ Charles W. Scharf

Charles W. Scharf

Chairman and Chief Executive Officer

DATED: February 28, 2018

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report has been signed below by the following persons on behalf of BNY Mellon and in the capacities and on the date indicated.

Signature	Capacities
By: /s/ Charles W. Scharf Charles W. Scharf Chairman and Chief Executive Officer	Director and Principal Executive Officer
By: /s/ Michael P. Santomassimo Michael P. Santomassimo Chief Financial Officer	Principal Financial Officer
By: /s/ Kurtis R. Kurimsky Kurtis R. Kurimsky Corporate Controller	Principal Accounting Officer
Linda Z. Cook; Joseph J. Echevarria; Edward P. Garden; Jeffrey A. Goldstein; John M. Hinshaw; Edmund F. Kelly; John A. Luke, Jr.; Jennifer B. Morgan; Mark A. Nordenberg; Elizabeth E. Robinson; Samuel C. Scott III	Directors
By: /s/ Craig T. Beazer Craig T. Beazer Attorney-in-fact	DATED: February 28, 2018

Exhibit 12.1

COMPUTATION OF RATIO OF EARNINGS TO COMBINED FIXED CHARGES AND PREFERRED STOCK DIVIDENDS

The Bank of New York Mellon Corporation

(dollar amounts in millions)	Year ended Dec. 31, **2017**	2016	2015	2014	2013
Earnings					
Income before income taxes	**$ 4,610**	$ 4,725	$ 4,235	$ 3,563	$ 3,777
Net (income) attributable to noncontrolling interests	**(24)**	(1)	(64)	(84)	(81)
Income before income taxes attributable to shareholders of The Bank of New York Mellon Corporation	**4,586**	4,724	4,171	3,479	3,696
Fixed charges, excluding interest on deposits	**1,007**	521	373	380	349
Income from income taxes and fixed charges, excluding interest on deposits applicable to the shareholders of The Bank of New York Mellon Corporation	**5,593**	5,245	4,544	3,859	4,045
Interest on deposits	**162**	16	37	83	105
Income before income taxes and fixed charges, including interest on deposits applicable to shareholders of The Bank of New York Mellon Corporation	**$ 5,755**	$ 5,261	$ 4,581	$ 3,942	$ 4,150
Fixed charges					
Interest expense, excluding interest on deposits	**$ 912**	$ 421	$ 263	$ 271	$ 238
One-third net rental expense *(a)*	**95**	100	110	109	111
Total fixed charges, excluding interest on deposits	**1,007**	521	373	380	349
Interest on deposits	**162**	16	37	83	105
Total fixed charges, including interests on deposits	**$ 1,169**	$ 537	$ 410	$ 463	$ 454
Preferred stock dividends *(b)*	**$ 175**	$ 122	$ 105	$ 73	$ 64
Total fixed charges and preferred stock dividends, excluding interest on deposits	**$ 1,182**	$ 643	$ 478	$ 453	$ 413
Total fixed charges and preferred stock dividends, including interest on deposits	**$ 1,344**	$ 659	$ 515	$ 536	$ 518
Earnings to fixed charges ratios					
Excluding interest on deposits	**5.55**	10.07	12.18	10.16	11.59
Including interest on deposits	**4.92**	9.80	11.17	8.51	9.14
Earnings to fixed charges and preferred stock dividends ratios *(b)*					
Excluding interest on deposits	**4.73**	8.16	9.51	8.52	9.79
Including interest on deposits	**4.28**	7.98	8.90	7.35	8.01

(a) The proportion deemed representative of the interest factor.

(b) Dividends paid in all periods presented include the Series A, Series C and Series D preferred stock. Dividends paid in 2017, 2016 and 2015 also include the Series E preferred stock, which was issued in 2015. Dividends paid in 2017 also include the Series F preferred stock, which was issued in 2016.

Financial Section

Exhibit 13.1

THE BANK OF NEW YORK MELLON CORPORATION
2017 Annual Report
Table of Contents

The Bank of New York Mellon Corporation (and its subsidiaries)

Financial Summary

(dollar amounts in millions, except per common share amounts and unless otherwise noted)	**2017**	2016	2015	2014	2013
Year ended Dec. 31,					
Fee and other revenue	**$ 12,165**	$ 12,073	$ 12,082	$ 12,649	$ 11,856
Income from consolidated investment management funds	**70**	26	86	163	183
Net interest revenue	**3,308**	3,138	3,026	2,880	3,009
Total revenue	**15,543**	15,237	15,194	15,692	15,048
Provision for credit losses	**(24)**	(11)	160	(48)	(35)
Noninterest expense	**10,957**	10,523	10,799	12,177	11,306
Income before income taxes	**4,610**	4,725	4,235	3,563	3,777
Provision for income taxes	**496**	1,177	1,013	912	1,592
Net income	**4,114**	3,548	3,222	2,651	2,185
Net (income) attributable to noncontrolling interests *(a)*	**(24)**	(1)	(64)	(84)	(81)
Net income applicable to shareholders of The Bank of New York Mellon Corporation	**4,090**	3,547	3,158	2,567	2,104
Preferred stock dividends	**(175)**	(122)	(105)	(73)	(64)
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	**$ 3,915**	$ 3,425	$ 3,053	$ 2,494	$ 2,040
Earnings per share applicable to common shareholders of The Bank of New York Mellon Corporation:					
Basic	**$ 3.74**	$ 3.16	$ 2.73	$ 2.17	$ 1.74
Diluted	**$ 3.72**	$ 3.15	$ 2.71	$ 2.15	$ 1.73
Average common shares and equivalents outstanding of The Bank of New York Mellon Corporation *(in thousands)* **:**					
Basic	**1,034,281**	1,066,286	1,104,719	1,129,897	1,150,689
Diluted	**1,040,290**	1,072,013	1,112,511	1,137,480	1,154,441
At Dec. 31					
Interest-earning assets	**$ 316,261**	$ 280,332	$ 338,955	$ 317,646	$ 305,169
Assets of operations	**371,027**	332,238	392,379	376,021	363,244
Total assets	**371,758**	333,469	393,780	385,303	374,516
Deposits	**244,322**	221,490	279,610	265,869	261,129
Long-term debt	**27,979**	24,463	21,547	20,264	19,864
Preferred stock	**3,542**	3,542	2,552	1,562	1,562
Total The Bank of New York Mellon Corporation common shareholders' equity	**37,709**	35,269	35,485	35,879	35,935
At Dec. 31					
Assets under management *(in billions) (b)*	**$ 1,893**	$ 1,648	$ 1,625	$ 1,686	$ 1,557
Assets under custody and/or administration *(in trillions) (c)*	**33.3**	29.9	28.9	28.5	27.6
Market value of securities on loan *(in billions) (d)*	**408**	296	277	289	235
Return on common equity *(e)*	**10.8%**	9.6%	8.6%	6.8%	5.9%
Adjusted return on common equity – Non-GAAP *(e)(f)*	**11.4**	10.2	9.5	8.1	8.3
Return on tangible common equity – Non-GAAP *(e)(f)(g)*	**23.9**	21.2	19.7	16.0	15.3
Adjusted return on tangible common equity – Non-GAAP *(e)(f)(g)*	**24.4**	21.4	20.7	17.6	19.7
Return on average assets	**1.14**	0.96	0.82	0.67	0.60
Pre-tax operating margin *(e)*	**30**	31	28	23	25
Adjusted pre-tax operating margin – Non-GAAP *(e)(f)*	**32**	33	31	28	28
Fee revenue as a percentage of total revenue	**78**	79	79	80	78
Percentage of non-U.S. total revenue	**36**	34	36	38	37
Net interest margin	**1.14**	1.03	0.96	0.95	1.10

(a) Primarily attributable to noncontrolling interests related to consolidated investment management funds.

(b) Excludes securities lending cash management assets and assets managed in the Investment Services business.

(c) Includes the assets under custody and/or administration of CIBC Mellon Global Securities Services Company ("CIBC Mellon"), a joint venture with the Canadian Imperial Bank of Commerce, of $1.3 trillion at Dec. 31, 2017 , $1.2 trillion at Dec. 31, 2016 , $1.0 trillion at Dec. 31, 2015 , $1.1 trillion at Dec. 31, 2014 and $1.2 trillion at Dec. 31, 2013 .

(d) Represents the total amount of securities on loan in our agency securities lending program managed by the Investment Services business. Excludes securities for which BNY Mellon acts as an agent on behalf of CIBC Mellon clients, which totaled $71 billion at Dec. 31, 2017 , $63 billion at Dec. 31, 2016 , $55 billion at Dec. 31, 2015 , $65 billion at Dec. 31, 2014 and $62 billion at Dec. 31, 2013 .

(e) See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 118 for the reconciliation of Non-GAAP measures.

(f) Non-GAAP information for all periods presented excludes net income attributable to noncontrolling interests of consolidated investment management funds, amortization of intangible assets and merger and integration ("M&I"), litigation and restructuring charges. Non-GAAP information for 2016 and 2015 also excludes the (recovery) impairment charge related to the loan to Sentinel Management Group, Inc. ("Sentinel"). Non-GAAP information for 2014 also excludes the gains on the sales of our equity investment in Wing Hang Bank Limited ("Wing Hang") and our One Wall Street building, the charge related to investment management funds, net of incentives, and the benefit primarily related to a tax carryback claim. Non-GAAP information for 2013 also excludes the charge related to investment management funds, net of incentives and the net charge related to the disallowance of certain foreign tax credits.

(g) Tangible common equity – Non-GAAP for all periods presented excludes goodwill and intangible assets, net of deferred tax liabilities, which, at Dec. 31, 2017, have been remeasured at the lower statutory corporate tax rate.

The Bank of New York Mellon Corporation (and its subsidiaries)

Financial Summary (continued)

(dollar amounts in millions, except per common share amounts and unless otherwise noted)	**2017**	2016	2015	2014	2013
Cash dividends per common share	**$ 0.86**	$ 0.72	$ 0.68	$ 0.66	$ 0.58
Common dividend payout ratio	**23%**	23%	25%	31% *(a)*	34% *(a)*
Common dividend yield	**1.6%**	1.5%	1.6%	1.6%	1.7%
Closing stock price per common share	**$ 53.86**	$ 47.38	$ 41.22	$ 40.57	$ 34.94
Market capitalization *(in billions)*	**$ 54.6**	$ 49.6	$ 44.7	$ 45.4	$ 39.9
Book value per common share *(b)*	**$ 37.21**	$ 33.67	$ 32.69	$ 32.09	$ 31.46
Tangible book value per common share – Non-GAAP *(b)(c)*	**$ 18.24**	$ 16.19	$ 15.27	$ 14.70	$ 13.95
Full-time employees	**52,500**	52,000	51,200	50,300	51,100
Year-end common shares outstanding *(in thousands)*	**1,013,442**	1,047,488	1,085,343	1,118,228	1,142,250
Average total equity to average total assets	**11.7%**	10.7%	10.2%	10.2%	10.6%
Capital ratios at Dec. 31,					
Consolidated regulatory capital ratios: *(d)(e)*					
Standardized:					
CET1 ratio	**11.9%**	12.3%	11.5%	15.0%	14.5%
Tier 1 capital ratio	**14.2**	14.5	13.1	16.3	16.2
Total (Tier 1 plus Tier 2) capital ratio	**15.1**	15.2	13.5	16.9	17.0
Advanced:					
CET1 ratio	**10.7**	10.6	10.8	11.2	N/A
Tier 1 capital ratio	**12.7**	12.6	12.3	12.2	N/A
Total (Tier 1 plus Tier 2) capital ratio	**13.4**	13.0	12.5	12.5	N/A
Leverage capital ratio *(e)*	**6.6**	6.6	6.0	5.6	5.4
Supplementary leverage ratio *(e)*	**6.1**	6.0	5.4	N/A	N/A
BNY Mellon shareholders' equity to total assets ratio	**11.1**	11.6	9.7	9.7	10.0
BNY Mellon common shareholders' equity to total assets ratio	**10.1**	10.6	9.0	9.3	9.6
Selected regulatory capital ratios - fully phased-in – Non-GAAP *(f)* **:**					
Estimated CET1 ratio *(d)* :					
Standardized Approach	**11.5**	11.3	10.2	10.6	10.6
Advanced Approach	**10.3**	9.7	9.5	9.8	11.3
Estimated SLR	**5.9**	5.6	4.9	4.4	N/A

(a) The common dividend payout ratio was 25% for 2014 after adjusting for increased litigation expense, and 26% for 2013 after adjusting for the net impact of the U.S. Tax Court's decisions regarding certain foreign tax credits.

(b) See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 118 for the reconciliation of Non-GAAP measures.

(c) Tangible book value – Non-GAAP for all periods presented excludes goodwill and intangible assets, net of deferred tax liabilities, which, at Dec. 31, 2017, have been remeasured at the lower statutory corporate tax rate.

(d) Risk-based capital ratios at Dec. 31, 2014 and Dec. 31, 2013 do not reflect the adoption of accounting guidance related to Consolidations (ASU 2015-02). At Dec. 31, 2014, risk-based capital ratios include the net impact of the total consolidated assets of certain consolidated investment management funds in risk-weighted assets ("RWAs"). These assets were not included in the Dec. 31, 2013 risk-based ratios. The leverage capital ratio was not impacted.

(e) At Dec. 31, 2017, Dec. 31, 2016, Dec. 31, 2015 and Dec. 31, 2014, the Common Equity Tier 1 ("CET1"), Tier 1 and Total risk-based consolidated regulatory capital ratios are based on Basel III components of capital, as phased-in, and credit risk asset risk-weightings using the U.S. capital rules' advanced approaches framework (the "Advanced Approach"). The leverage capital ratio is based on Basel III's definition of Tier 1 capital, as phased-in, and quarterly average assets. The Supplementary Leverage Ratio ("SLR") is based on Tier 1 capital, as phased-in, and quarterly average assets and certain off-balance sheet exposures. The capital ratios at Dec. 31, 2013 are based on Basel I rules (including Basel I Tier 1 common in the case of the CET1 ratio). For additional information on these ratios, see "Capital" beginning on page 53 .

(f) The estimated fully phased-in CET1 and SLR ratios (Non-GAAP) are based on our interpretation of the U.S. capital rules, which are being gradually phased-in over a multi-year period. For additional information on these Non-GAAP ratios, see "Capital" beginning on page 53 .

General

In this Annual Report, references to "our," "we," "us," "BNY Mellon," the "Company" and similar terms refer to The Bank of New York Mellon Corporation and its consolidated subsidiaries. The term "Parent" refers to The Bank of New York Mellon Corporation but not its subsidiaries.

BNY Mellon's actual results of future operations may differ from those estimated or anticipated in certain forward-looking statements contained herein for reasons which are discussed below and under the heading "Forward-looking Statements." When used in this Annual Report, words such as "estimate," "forecast," "project," "anticipate," "likely," "target," "expect," "intend," "continue," "seek," "believe," "plan," "goal," "could," "should," "would," "may," "might," "will," "strategy," "synergies," "opportunities," "trends," "future" and words of similar meaning, may signify forward-looking statements.

Certain business terms and commonly used acronyms used in this Annual Report are defined in the Glossary and Acronyms sections.

The following should be read in conjunction with the Consolidated Financial Statements included in this report. Investors should also read the section titled "Forward-looking Statements."

How we reported results

Throughout this Annual Report, certain measures, which are noted as "Non-GAAP financial measures," exclude certain items or otherwise include components that differ from U.S. generally accepted accounting principles ("GAAP"). BNY Mellon believes that these measures are useful to investors because they permit a focus on period-to-period comparisons using measures that relate to our ability to enhance revenues and limit expenses in circumstances where such matters are within our control or because they provide additional information about our ability to meet fully phased-in capital requirements. Certain immaterial reclassifications have been made to prior periods to place them on a basis comparable with the current period presentation. See "Supplemental information - Explanation of GAAP and Non-GAAP financial measures" beginning on page 118 for a reconciliation of financial measures presented on a Non-GAAP basis. See "Net interest revenue," including the "Average balances and interest rates" beginning on page 12 for information on measures presented on a fully taxable equivalent ("FTE") basis. Also see "Capital" beginning on page 53 for information on our fully phased-in capital requirements.

Overview

Established in 1792 by Alexander Hamilton, we were the first company listed on the New York Stock Exchange (NYSE: BK). With a more than 225-year history, BNY Mellon is a global company that manages and services assets for financial institutions, corporations and individual investors in 35 countries and more than 100 markets.

BNY Mellon has two business segments, Investment Management and Investment Services, which offer a comprehensive set of capabilities and deep expertise across the investment lifecycle, which enables the company to provide solutions to buy-side and sell-side market participants, as well as leading institutional and wealth management clients globally.

Investment Management provides investment management services to institutional and retail investors, as well as investment management, wealth and estate planning and private banking solutions to high net worth individuals and families, and foundations and endowments.

Investment Services provides business and technology solutions to financial institutions, corporations, public funds and government agencies, including: asset servicing (custody, foreign exchange, fund services, broker-dealer services, securities finance, collateral management and liquidity services), clearing services, issuer services (depositary receipts and corporate trust) and treasury services (global payments, trade finance and cash management).

As of Dec. 31, 2017 , BNY Mellon had $33.3 trillion in assets under custody and/or administration ("AUC/A"), and $1.9 trillion in assets under management ("AUM"). In 2017, the Company delivered 18%

growth in earnings per share and increased the return on common equity to nearly 11% year-over-year.

The Company continues to prioritize investments in technology and operations to increase resiliency, improve efficiency and reduce risk. Excellence in risk management is essential.

The Company maintains strong capital and liquidity positions to support the Company's business activities and client needs.

As a U. S. Global Systemically Important Bank ("G-SIB"), BNY Mellon is required to be in compliance with various capital ratios. At Dec. 31, 2017, the Advanced Approach CET1 ratio of 10.7% was above the minimum requirement of 6.5%. The Company expects the CET1 ratio to remain at least 100 basis points above the regulatory minimum requirement plus the applicable buffers.

The Company is subject to the SLR. At Dec. 31, 2017, the estimated fully phased-in SLR (Non-GAAP) of 5.9% was above the regulatory minimum of 5.0%. The Company currently expects to maintain an SLR ratio of at least 50 basis points above the regulatory minimum requirement plus the applicable buffer.

The Company's liquidity position remained strong in 2017. The liquidity coverage ratio ("LCR") averaged 118% in the fourth quarter and met the 100% fully phased-in regulatory requirement.

The Company prioritizes maintaining balance sheet strength in order to deploy capital efficiently to fuel future growth and return value to shareholders. In 2017, we returned $3.6 billion to shareholders, consisting of $901 million in common stock dividends and $2.7 billion in share repurchases.

Key 2017 and subsequent events

Tax Cuts and Jobs Act of 2017

In December 2017, the Tax Cuts and Jobs Act of 2017 (hereinafter referred to as the "U.S. tax legislation" or the "Tax Act") was signed into law in the United States. The U.S tax legislation significantly alters the tax landscape by reducing the corporate federal tax rate to 21% from 35% and shifting to a partial territorial tax system instead of a worldwide tax system, among other changes. The transition to the new tax system triggers a one-time repatriation tax on undistributed earnings of certain foreign subsidiaries.

U.S. GAAP requires companies to recognize the effect of tax law changes on deferred tax assets and liabilities and other recognized assets in the period of enactment. As a result, the effects of the U.S. tax legislation were reflected in the fourth-quarter 2017 financial statements resulting in an estimated $427 million or $0.41 per common share increase in net income. The U.S. tax legislation had a negative impact on regulatory capital, resulting in a $551 million decrease in the numerator of CET1, Tier 1 and Total capital ratios.

Our estimate of the impact of the U.S. tax legislation is based on certain assumptions and our current interpretation of the Tax Cuts and Jobs Act, and may change, possibly materially, as we refine our analysis and as further information becomes available. See "Recent Accounting Developments" and Note 10 of the Notes to Consolidated Financial Statements for additional information.

Charles W. Scharf named chief executive officer and chairman; Gerald L. Hassell, former chairman retired

In July 2017, Charles W. Scharf was appointed chief executive officer and member of the board of directors of the Company. Effective Jan. 1, 2018, Mr. Scharf became chairman of the board of directors. Mr. Scharf succeeds Gerald L. Hassell, who retired at the end of 2017.

Additional changes to leadership team

The following leadership changes were also effective on Jan. 1, 2018.

Thomas ("Todd") P. Gibbons, previously the Chief Financial Officer, was appointed Chief Executive Officer of Clearing, Markets and Client Management. Mr. Gibbons remains on the Executive Committee.

Michael P. Santomassimo was appointed Chief Financial Officer, succeeding Mr. Gibbons, and joined the Executive Committee. Mr. Santomassimo previously served as the Chief Financial Officer of Investment Services since July 2016.

See “Directors, Executive Committee and Other Executive Officers” on page 212 for a list of the Company’s leadership team.

Resolution plan

As required by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the “Dodd-Frank Act”), the Parent must submit periodically to the Board of Governors of the Federal Reserve System (“Federal Reserve”) and the Federal Deposit Insurance Corporation (“FDIC”) a plan for its rapid and orderly resolution in the event of material financial distress or failure. In December 2017, based on their review of our 2017 resolution plan, the agencies jointly decided that the Parent’s 2017 resolution plan satisfactorily addressed the identified shortcomings in its prior resolution plan. The agencies found no deficiencies or shortcomings in BNY Mellon’s 2017 plan. The public portion of our 2017 resolution plan is available on the Federal Reserve’s and FDIC’s websites.

Also, in September 2017, the Federal Reserve and FDIC extended the filing deadline by one year to July 1, 2019 for the Parent’s next resolution plan.

In connection with our single point of entry resolution strategy, we have established BNY Mellon IHC, LLC, a wholly owned direct subsidiary of the Parent, (the “IHC”), to facilitate the provision of capital and liquidity resources to certain key subsidiaries in the event of material financial distress or failure. In the second quarter of 2017, we entered into a binding support agreement that requires the IHC to provide that support. See “Liquidity and dividends” beginning on page 47 for additional information.

Disposition of CenterSquare Investment Management

In January 2018, we completed the sale of CenterSquare Investment Management (“CenterSquare”), one of our Investment Management boutiques, and recorded a small gain on the transaction. CenterSquare had approximately $9 billion in AUM in U.S. and global real estate and infrastructure investments.

Combination of three U.S. investment managers

In November 2017, we announced that we will launch a specialist multi-asset investment manager in 2018. The new business will combine BNY Mellon’s three largest U.S. investment managers - Mellon Capital Management (“MCM”), Standish Mellon Asset Management (“Standish”), and The Boston Com pany Asset Management (“TBCAM”) - to offer institutional and intermediary clients high quality single and multi-asset investment strategies in both active and passive solutions, backed by greater scale in risk management, technology and operations.

Capital plan, share repurchase program and increase in cash dividend on common stock

In June 2017, BNY Mellon received confirmation that the Federal Reserve did not object to our 2017 capital plan submitted in connection with its Comprehensive Capital Analysis and Review (“CCAR”). Our board of directors subsequently approved the repurchase of up to $2.6 billion of common stock starting in the third quarter of 2017 and continuing through the second quarter of 2018.

Additionally, in July 2017, the board of directors approved a 26% increase in the quarterly cash dividend to $0.24 per common share, which was also included in the 2017 capital plan. The first payment of the increased quarterly cash dividend was made on Aug. 11, 2017.

Established BNY Mellon Government Securities Services Corp.

In the second quarter of 2017, BNY Mellon established BNY Mellon Government Securities Services Corp. (“GSS Corp.”) a U.S.-based wholly owned operating subsidiary that houses the operations and technology supporting our U.S. government securities clearing and settlement and U.S. tri-party repo clearing and settlement services. The board of directors of GSS Corp. provides oversight of business affairs, operational risk and performance, as well as direction on strategic initiatives to drive industry-leading practices and processes. The board currently consists of seven members, including three independent members.

Summary of financial highlights

We reported net income applicable to common shareholders of BNY Mellon of $3.9 billion , or $3.72 per diluted common share, in 2017 , including an estimated net benefit related to U.S. tax legislation of $427 million , or $0.41 per common share, and severance, litigation and other charges of $246 million, or $0.24 per common share, both recorded in the fourth quarter of 2017. In 2016 , net income applicable to common shareholders of BNY Mellon was $3.4 billion , or $3.15 per diluted common share.

Highlights of 2017 results

- AUC/A totaled a record $33.3 trillion at Dec. 31, 2017 compared with $29.9 trillion at Dec. 31, 2016 . The 11% increase primarily reflects higher market values, the favorable impact of a weaker U.S. dollar and net new business. (See “Investment Services business” beginning on page 22 .)
- AUM totaled a record $1.9 trillion at Dec. 31, 2017 compared with $1.6 trillion at Dec. 31, 2016 . The 15% increase primarily reflects higher market values, the favorable impact of a weaker U.S. dollar (principally versus the British pound) and net inflows. AUM excludes securities lending cash management assets and assets managed in the Investment Services business. (See “Investment Management business” beginning on page 18 .)
- Investment services fees totaled $7.5 billion in 2017 , an increase of 3% compared with $7.2 billion in 2016 , primarily reflecting higher money market fees, equity market values and net new business, including growth in collateral management, partially offset by lost business and lower volumes in certain Depositary Receipts programs. (See “Investment Services business” beginning on page 22 .)
- Investment management and performance fees totaled $3.6 billion in 2017 compared with $3.4 billion in 2016 , an increase of 7% , primarily reflecting higher market values, money market fees and performance fees, partially offset by the unfavorable impact of a stronger U.S. dollar (principally versus the British pound). On a constant currency basis (Non-GAAP), investment management and performance fees increased 8% compared with 2016. (See “Investment Management business” beginning on page 18 .)
- Foreign exchange and other trading revenue totaled $668 million in 2017 compared with $701 million in 2016 . Foreign exchange revenue totaled $638 million in 2017 , a decrease of 7% compared with $687 million in 2016 . The decrease in foreign exchange revenue primarily reflects lower volatility, partially offset by higher volumes. (See “Fee and other revenue” beginning on page 9 .)
- Net interest revenue totaled $3.3 billion in 2017 compared with $3.1 billion in 2016 , an increase of 5% . The increase primarily reflects higher interest rates, partially offset by lower interest-earning assets driven by lower average deposits. Net interest margin was 1.14% in 2017 compared with 1.03% in 2016 . Net interest margin (FTE) - Non-GAAP was 1.15% in 2017 compared with 1.05% in 2016 . The increase in the net interest margin primarily reflects higher yields on interest-earning assets, partially offset by higher rates paid on interest-bearing liabilities. (See “Net interest revenue” beginning on page 12 .)
- The provision for credit losses was a credit of $24 million in 2017 and a credit of $11 million in 2016 . (See “Asset quality and allowance for credit losses” beginning on page 43 .)
- Noninterest expense totaled $11.0 billion in 2017 compared with $10.5 billion in 2016 . The 4% increase primarily reflects higher staff, software and professional, legal and other purchased services expenses. (See “Noninterest expense” beginning on page 15 .)
- The provision for income taxes was $496 million (10.8% effective tax rate) in 2017 , including the estimated tax benefit of $710 million recorded in the fourth quarter of 2017 related to U.S. tax legislation. (See “Income taxes” on page 16 .)
- The net unrealized pre-tax loss on our total investment securities portfolio was $85 million at Dec. 31, 2017 , compared with a pre-tax loss of $221 million at Dec. 31, 2016 , including the impact of related hedges. The decrease in net unrealized pre-tax loss was primarily driven by a decline in long-term interest rates. (See “Investment securities” beginning on page 36 .)
- Our CET1 ratio calculated under the Advanced Approach was 10.7% at Dec. 31, 2017 and 10.6% at Dec. 31, 2016 . The increase primarily reflects CET1 generation, partially offset by the additional phase-in requirements under the U.S. capital rules that became effective Jan. 1, 2017 and the impact of U.S. tax legislation. (See “Capital” beginning on page 53 .)
- Our estimated CET1 ratio calculated under the Advanced Approach on a fully phased-in basis (Non-GAAP) was 10.3% at Dec. 31, 2017 and 9.7% at Dec. 31, 2016 . The increase primarily

reflects CET1 generation, partially offset by the impact of U.S. tax legislation. U.S. tax legislation had a negative impact on regulatory capital, resulting in a $551 million decrease, driven by the repatriation tax, offset by the tax benefit related to the remeasurement of certain deferred tax liabilities. Our estimated CET1 ratio calculated under the Standardized Approach on a fully phased-in basis (Non-GAAP) was 11.5% at Dec. 31, 2017 and 11.3% at Dec. 31, 2016 . (See “Capital” beginning on page 53 .)

Results for 2016

In 2016, we reported net income applicable to common shareholders of BNY Mellon of $3.4 billion , or $3.15 per diluted common share. These results were primarily driven by:

- Investment services fees totaled $7.2 billion in 2016 , an increase of 2% compared with $7.1 billion in 2015 , primarily reflecting higher money market fees and securities lending revenue, partially offset by the unfavorable impact of lost business on clearing services fees, the unfavorable impact of a stronger U.S. dollar and the downsizing of the UK transfer agency business.
- Investment management and performance fees totaled $3.35 billion in 2016 compared with $3.44 billion in 2015 , a decrease of 3% , due to the unfavorable impact of a stronger U.S. dollar (principally versus the British pound), net outflows of AUM and lower performance fees, partially offset by higher market values and money market fees.
- Foreign exchange and other trading revenue totaled $701 million in 2016 compared with $768 million in 2015 . Foreign exchange revenue totaled $687 million in 2016 , a decrease of 8%, compared with $743 million in 2015 . The decrease in foreign exchange revenue primarily reflects the impact of clients migrating to lower margin products and lower volumes.
- The provision for credit losses was a credit of $11 million in 2016 compared with a provision of $160 million in 2015 . The provision in 2015 was primarily driven by an impairment charge related to a court decision regarding Sentinel.
- Noninterest expense totaled $10.5 billion in 2016 compared with $10.8 billion in 2015 . The decrease primarily reflects lower expenses in nearly all categories, driven by the favorable impact of a stronger U.S. dollar, lower staff, other, litigation and legal expenses and the benefit of the business improvement process. The decrease was partially offset by higher bank assessment charges, distribution and servicing and software expenses.
- The provision for income taxes was $1.2 billion (24.9% effective tax rate) in 2016 .

Results for 2015

In 2015, we reported net income applicable to common shareholders of BNY Mellon of $3.1 billion , or $2.71 per diluted common share. These results were primarily driven by:

- Investment services fees totaled $7.1 billion primarily reflecting higher asset servicing fees, reflecting growth in collateral, broker-dealer and other asset servicing, and higher clearing services fees, primarily driven by higher mutual fund fees, partially offset by lower treasury services fees.
- Investment management and performance fees totaled $3.4 billion , primarily reflecting the July 2015 sale of Meriten Investment Management GmbH (“Meriten”) and lower performance fees, partially offset by the impact of the January 2015 acquisition of Cutwater Asset Management (“Cutwater”) and strategic initiatives and higher money market fees and equity market values.
- Foreign exchange and other trading revenue totaled $768 million primarily reflecting lower volumes in standing instruction programs, which were more than offset by higher volumes in the other trading programs, higher volatility and the impact of hedging activity for foreign currency placements.
- The provision for credit losses was $160 million, primarily driven by an impairment charge related to a court decision involving Sentinel.
- Noninterest expense totaled $10.8 billion primarily reflecting lower expenses in nearly all categories, except distribution and servicing and software expenses.
- The provision for income taxes was $1.0 billion (23.9% effective tax rate) in 2015 .

Fee and other revenue

Fee and other revenue (dollars in millions, unless otherwise noted)		2017		2016		2015	2017 vs. 2016	2016 vs. 2015
Investment services fees:								
Asset servicing *(a)*	$	**4,383**	$	4,244	$	4,187	**3 %**	1 %
Clearing services		**1,553**		1,404		1,375	**11**	2
Issuer services		**977**		1,026		978	**(5)**	5
Treasury services		**557**		547		555	**2**	(1)
Total investment services fees		**7,470**		7,221		7,095	**3**	2
Investment management and performance fees		**3,584**		3,350		3,438	**7**	(3)
Foreign exchange and other trading revenue		**668**		701		768	**(5)**	(9)
Financing-related fees		**216**		219		220	**(1)**	
Distribution and servicing		**160**		166		162	**(4)**	2
Investment and other income		**64**		341		316	**N/M**	N/M
Total fee revenue		**12,162**		11,998		11,999	**1**	
Net securities gains		**3**		75		83	**N/M**	N/M
Total fee and other revenue	$	**12,165**	$	12,073	$	12,082	**1 %**	— %
Fee revenue as a percentage of total revenue		**78%**		79%		79%		
AUM at period end *(in billions) (b)*	$	**1,893**	$	1,648	$	1,625	**15 %**	1 %
AUC/A at period end *(in trillions) (c)*	$	**33.3**	$	29.9	$	28.9	**11 %**	3 %

(a) Asset servicing fees include securities lending revenue of $195 million in 2017 , $207 million in 2016 and $176 million in 2015 .
(b) Excludes securities lending cash management assets and assets managed in the Investment Services business.
(c) Includes the AUC/A of CIBC Mellon of $1.3 trillion at Dec. 31, 2017 , $1.2 trillion at Dec. 31, 2016 and $1.0 trillion at Dec. 31, 2015 .

Fee and other revenue increased 1% compared with 2016 . The increase primarily reflects higher investment management and performance fees, clearing services fees and asset servicing fees, partially offset by lower investment and other income and net securities gains.

Investment services fees

Investment services fees increased 3% compared with 2016 reflecting the following:

- Asset servicing fees increased 3% , primarily reflecting higher equity market values, net new business, including growth in collateral management, and higher money market fees, partially offset by the downsizing of the UK transfer agency business.
- Clearing services fees increased 11% , primarily driven by higher money market fees and growth in long-term mutual fund assets.
- Issuer services fees decreased 5% , primarily reflecting lost business and lower volumes from weaker cross-border settlement activity in Depositary Receipts.
- Treasury services fees increased 2% , primarily reflecting higher payment volumes, partially offset by higher compensating balance credits provided to clients, which reduces fee revenue and increases net interest revenue.

See the “Investment Services business” in “Review of businesses” for additional details.

Investment management and performance fees

Investment management and performance fees increased 7% compared with 2016 . The increase primarily reflects higher market values, money market fees and performance fees, partially offset by the unfavorable impact of a stronger U.S. dollar on an average basis (principally versus the British pound). On a constant currency basis (Non-GAAP), investment management and performance fees increased 8% compared with 2016. Performance fees were $94 million in 2017 and $60 million in 2016 .

Total AUM for the Investment Management business was $1.9 trillion at Dec. 31, 2017 , an increase of 15% compared with $1.6 trillion at Dec. 31, 2016 . The increase primarily reflects higher market values, the favorable impact of a weaker U.S. dollar (principally versus the British pound) and net inflows. Net long-term inflows of $33 billion in 2017 were a result of $50 billion of inflows into actively managed strategies and $17 billion of outflows from index strategies. Net short-term inflows totaled $30 billion in 2017 .

See the “Investment Management business” in “Review of businesses” for additional details regarding the drivers of investment management and performance fees.

Foreign exchange and other trading revenue

Foreign exchange and other trading revenue						
(in millions)		**2017**		2016		2015
Foreign exchange	**$**	**638**	$	687	$	743
Other trading revenue		**30**		14		25
Total foreign exchange and other trading revenue	**$**	**668**	$	701	$	768

Foreign exchange and other trading revenue decreased 5% compared with 2016 .

Foreign exchange revenue is primarily driven by the volume of client transactions and the spread realized on these transactions, both of which are impacted by market volatility, and the impact of foreign currency hedging activities. In 2017 , foreign exchange revenue totaled $638 million , a decrease of 7% compared with 2016 . The decrease primarily reflects lower volatility, partially offset by higher volumes. Foreign exchange revenue is primarily reported in the Investment Services business and, to a lesser extent, the Investment Management business and the Other segment.

Our custody clients may enter into foreign exchange transactions in a number of ways, including through our standing instruction programs. While the shift of custody clients from our standing instruction programs to other trading options has abated, our foreign exchange revenue continues to be impacted by changes in volume and volatility. For the year ended Dec. 31, 2017 , our revenue for all types of foreign exchange trading transactions was $638 million , or 4% of our total revenue, and approximately 27% of our foreign exchange revenue was generated by transactions in our standing instruction programs, compared with 30% in 2016 and 33% in 2015.

Total other trading revenue was $30 million in 2017 , compared with $14 million in 2016 . The increase primarily reflects higher fixed-income trading, partially offset by lower equity and credit derivatives trading. Other trading revenue is reported in all three business segments.

Financing-related fees

Financing-related fees, which are primarily reported in the Investment Services business and the Other segment, include capital markets fees, loan commitment fees and credit-related fees. Financing-related fees totaled $216 million in 2017 compared with $219 million in 2016 due in part to lower fees on standby letters of credit.

Distribution and servicing fees

Distribution and servicing fees earned from mutual funds are primarily based on average assets in the funds and the sales of funds that we manage or administer and are primarily reported in the Investment Management business. These fees, which include 12b-1 fees, fluctuate with the overall level of net sales, the relative mix of sales between share classes, the funds’ market values and money market fee waivers.

Distribution and servicing fees were $160 million in 2017 compared with $166 million in 2016 . The decrease primarily reflects fees paid to introducing brokers, partially offset by higher money market fees.

Investment and other income

The following table provides the components of investment and other income.

Investment and other income						
(in millions)		**2017**		2016		2015
Corporate/bank-owned life insurance	**$**	**153**	$	149	$	139
Expense reimbursements from joint venture		**64**		67		63
Lease-related gains		**56**		38		45
Equity investment income (loss)		**37**		(10)		(19)
Seed capital gains *(a)*		**32**		44		35
Asset-related (losses) gains		**(1)**		10		
Other (loss) income		**(277)**		43		53
Total investment and other income	**$**	**64**	$	341	$	316

(a) *Excludes the gains (losses) on seed capital investments in consolidated investment management funds which are reflected in operations of consolidated investment management funds, net of noncontrolling interests, and were $37 million in 2017 , $16 million in 2016 and $18 million in 2015 .*

Investment and other income includes corporate and bank-owned life insurance contracts, expense reimbursements from our CIBC Mellon joint venture, and gains or losses from lease-related activity, equity investments and other assets, seed capital and other income. Expense reimbursements from our CIBC Mellon joint venture relate to expenses incurred by BNY Mellon on behalf of the CIBC Mellon joint venture. Asset-related gains include real estate, loan and other asset dispositions. Other income primarily includes foreign currency remeasurement gain (loss), other investments, including renewable energy, and various miscellaneous revenues. Investments in renewable energy generate losses in other income that are more than offset by benefits and credits recorded to the provision for income taxes.

Investment and other income was $64 million in 2017 compared with $341 million in 2016 . The decrease primarily reflects the impact of U.S. tax legislation on our renewable energy investments. The net impact of U.S. tax legislation on renewable energy investments was de minimis to net income, as the pre-tax accounting resulted in a reduction of $279 million to investment and other income, which was offset by the tax benefit from remeasurement of the related deferred tax liability.

Net securities gains

Net securities gains totaled $3 million in 2017 , compared with $75 million in 2016 . Net securities gains in 2017 were primarily offset by losses on the sale of certain investment securities.

2016 compared with 2015

Fee and other revenue totaled $12.07 billion in 2016 compared with $12.08 billion in 2015 . The slight decrease primarily reflects lower investment management and performance fees and foreign exchange and other trading revenue, partially offset by higher investment services fees and investment and other income.

The increase in investment services fees primarily reflects higher asset servicing fees, issuer services fees and clearing services fees driven by higher money market fees and securities lending revenue, partially offset by the unfavorable impact of lost business on clearing services fees, the unfavorable impact of a stronger U.S. dollar and the downsizing of the UK transfer agency business.

The decrease in investment management and performance fees primarily reflects the unfavorable impact of a stronger U.S. dollar (principally versus the British pound), net outflows of AUM and lower performance fees, partially offset by higher market values and money market fees.

The decrease in foreign exchange and other trading revenue primarily reflects the impact of clients migrating to lower margin products and lower volumes.

Net interest revenue

Net interest revenue *(dollars in millions)*		**2017**	2016	2015	**2017 vs. 2016**	2016 vs. 2015
Net interest revenue	$	**3,308**	$ 3,138	$ 3,026	**5 %**	4 %
Tax equivalent adjustment		**47**	51	58	**N/M**	N/M
Net interest revenue (FTE) – Non-GAAP *(a)*	$	**3,355**	$ 3,189	$ 3,084	**5 %**	3 %
Average interest-earning assets	$	**290,522**	$ 303,379	$ 313,763	**(4)%**	(3)%
Net interest margin		**1.14%**	1.03%	0.96%	**11 bps**	7 bps
Net interest margin (FTE) – Non-GAAP *(a)*		**1.15%**	1.05%	0.98%	**10 bps**	7 bps

(a) Net interest revenue (FTE) – Non-GAAP and net interest margin (FTE) – Non-GAAP include the tax equivalent adjustments on tax-exempt income which allows for comparisons of amounts arising from both taxable and tax-exempt sources and is consistent with industry practice. The adjustment to an FTE basis has no impact on net income.

Net interest revenue increased 5% compared with 2016 , primarily reflecting higher interest rates, partially offset by lower interest-earning assets driven by lower average deposits.

Net interest margin increased 11 basis points compared with 2016 , primarily reflecting higher yields on interest-earning assets, partially offset by higher rates paid on interest-bearing liabilities.

Average interest-earning assets were $291 billion in 2017 compared with $303 billion in 2016. The decrease primarily reflects lower average interest-bearing deposits with the Federal Reserve and other central banks, driven by lower average deposits.

Average non-U.S. dollar deposits comprised approximately 30% of our average total deposits in 2017 , compared with approximately 20% in 2016 . Approximately 45% of the average non-U.S. dollar deposits in 2017, compared with approximately 40% in 2016, were euro-denominated.

2016 compared with 2015

Net interest revenue increased 4% compared with 2015 , primarily reflecting an increase in interest rates, partially offset by lower interest-earning assets. The 7 basis point increase in the net interest margin primarily reflects higher yields on interest-earning assets, partially offset by higher rates paid on interest-bearing liabilities.

Average balances and interest rates	2017		
(dollar amounts in millions, presented on an FTE basis)	Average balance	Interest	Average rates
Assets			
Interest-earning assets:			
Interest-bearing deposits with banks (primarily foreign banks)	$ 14,879	$ 120	0.80 %
Interest-bearing deposits held at the Federal Reserve and other central banks	70,213	319	0.45
Federal funds sold and securities purchased under resale agreements	27,192	423	1.55
Margin loans	14,500	343	2.36
Non-margin loans:			
Domestic offices:			
Consumer	9,548	298	3.12
Commercial	20,976	521	2.49
Foreign offices	12,915	258	2.00
Total non-margin loans	43,439	1,077 *(a)*	2.48
Securities:			
U.S. government obligations	25,674	425	1.66
U.S. government agency obligations	60,268	1,195	1.98
State and political subdivisions	3,226	100	3.09
Other securities:			
Domestic offices	9,141	215	2.35
Foreign offices	19,541	150	0.77
Total other securities	28,682	365	1.27
Trading securities (primarily domestic)	2,449	62	2.54
Total securities	120,299	2,147	1.79
Total interest-earning assets	$ 290,522	$ 4,429	1.52 %
Noninterest-earning assets	53,326		
Total assets	$ 343,848		
Liabilities			
Interest-bearing liabilities:			
Interest-bearing deposits:			
Domestic offices:			
Money market rate accounts	$ 7,510	$ 4	0.06 %
Savings	932	7	0.79
Demand deposits	5,892	14	0.24
Time deposits	32,574	82	0.25
Total domestic offices	46,908	107	0.23
Foreign offices:			
Banks	13,185	62	0.47
Government and official institutions	5,880	9	0.16
Other	77,150	(16)	(0.02)
Total foreign offices	96,215	55	0.06
Total interest-bearing deposits	143,123	162	0.11
Federal funds purchased and securities sold under repurchase agreements	19,653	225	1.14
Trading liabilities	1,243	7	0.57
Other borrowed funds:			
Domestic offices	1,113	21	1.86
Foreign offices	803	5	0.67
Total other borrowed funds	1,916	26	1.36
Commercial paper	2,630	29	1.08
Payables to customers and broker-dealers	18,984	64	0.34
Long-term debt	27,424	561	2.05

Total interest-bearing liabilities	$ 214,973	$ 1,074	0.50 %
Total noninterest-bearing deposits	71,664		
Other noninterest-bearing liabilities	16,932		
Total liabilities	303,569		
Temporary equity			
Redeemable noncontrolling interests	180		
Permanent equity			
Total BNY Mellon shareholders’ equity	39,687		
Noncontrolling interests	412		
Total permanent equity	40,099		
Total liabilities, temporary equity and permanent equity	$ 343,848		
Net interest revenue (FTE) ─ Non-GAAP		$ 3,355	
Net interest margin (FTE) ─ Non-GAAP			1.15 %
Less: Tax equivalent adjustment *(b)*		47	
Net interest revenue		$ 3,308	
Net interest margin			1.14 %
Percentage of assets attributable to foreign offices *(c)*	30%		
Percentage of liabilities attributable to foreign offices *(c)*	35		

Note: Interest and average rates were calculated on a taxable equivalent basis using dollar amounts in thousands and actual number of days in the year.
(a) Includes fees of $9 million in 2017 . Non-accrual loans are included in average loans; the associated income, which was recognized on a cash basis, is included in interest income.
(b) The tax equivalent adjustment relates to tax-exempt securities, primarily state and political subdivisions, based on the U.S. federal statutory tax rate of 35%, adjusted for applicable state income taxes, net of the related federal tax benefit.
(c) Includes the Cayman Islands branch office.

Average balances and interest rates (continued) *(dollar amounts in millions, presented on an FTE basis)*	2016 Average balance	2016 Interest	2016 Average rates	2015 Average balance	2015 Interest	2015 Average rates
Assets						
Interest-earning assets:						
Interest-bearing deposits with banks (primarily foreign banks)	$ 14,704	$ 104	0.70 %	$ 20,531	$ 104	0.51 %
Interest-bearing deposits held at the Federal Reserve and other central banks	80,593	198	0.25	83,029	170	0.20
Federal funds sold and securities purchased under resale agreements	25,767	233	0.91	23,384	147	0.63
Margin loans	18,201	265	1.46	19,917	207	1.04
Non-margin loans:						
Domestic offices:						
Consumer	8,483	259	3.05	7,145	217	3.03
Commercial	21,820	417	1.91	19,647	346	1.76
Foreign offices	13,177	197	1.50	13,963	164	1.18
Total non-margin loans	43,480	873 *(a)*	2.01	40,755	727 *(a)*	1.78
Securities:						
U.S. government obligations	25,074	378	1.51	25,904	378	1.46
U.S. government agency obligations	56,384	986	1.75	55,044	967	1.76
State and political subdivisions	3,703	110	2.96	4,712	128	2.73
Other securities:						
Domestic offices	12,326	210	1.71	14,644	302	2.06
Foreign offices	20,664	206	1.00	22,889	176	0.77
Total other securities	32,990	416	1.26	37,533	478	1.27
Trading securities (primarily domestic)	2,483	63	2.56	2,954	78	2.65
Total securities	120,634	1,953	1.62	126,147	2,029	1.61
Total interest-earning assets	$ 303,379	$ 3,626	1.20 %	$ 313,763	$ 3,384	1.08 %
Noninterest-earning assets	55,098			58,424		
Total assets	$ 358,477			$ 372,187		
Liabilities						
Interest-bearing liabilities:						
Interest-bearing deposits:						
Domestic offices:						
Money market rate accounts	$ 7,780	$ 4	0.06 %	$ 7,272	$ 6	0.08 %
Savings	1,191	4	0.37	1,312	4	0.28
Demand deposits	2,520	7	0.28	2,792	6	0.23
Time deposits	43,056	26	0.06	44,162	14	0.03
Total domestic office	54,547	41	0.08	55,538	30	0.06
Foreign offices:						
Banks	13,130	12	0.09	16,626	10	0.06
Government and official institutions	4,159	—	0.01	5,591		
Other	85,110	(37)	(0.04)	87,341	(3)	
Total foreign offices	102,399	(25)	(0.02)	109,558	7	0.01
Total interest-bearing deposits	156,946	16	0.01	165,096	37	0.02
Federal funds purchased and securities sold under repurchase agreements	14,489	36	0.25	16,452	(6)	(0.04)
Trading liabilities	711	6	0.89	634	9	1.39
Other borrowed funds:						
Domestic offices	93	4	4.15	162	4	2.77
Foreign offices	753	4	0.51	652	5	0.71
Total other borrowed funds	846	8	0.91	814	9	1.12
Commercial paper	1,337	5	0.37	1,549	2	0.10
Payables to customers and broker-dealers	16,925	12	0.07	11,649	7	0.06
Long-term debt	23,334	354	1.52	20,832	242	1.16

Total interest-bearing liabilities	$ 214,588	$ 437	0.20 %	$ 217,026	$ 300	0.14 %
Total noninterest-bearing deposits	82,712			86,338		
Other noninterest-bearing liabilities	21,928			29,959		
Total liabilities	319,228			333,323		
Temporary equity						
Redeemable noncontrolling interests	182			240		
Permanent equity						
Total BNY Mellon shareholders’ equity	38,489			37,812		
Noncontrolling interests	578			812		
Total permanent equity	39,067			38,624		
Total liabilities, temporary equity and permanent equity	$ 358,477			$ 372,187		
Net interest revenue (FTE) — Non-GAAP		$ 3,189			$ 3,084	
Net interest margin (FTE) — Non-GAAP			1.05 %			0.98 %
Less: Tax equivalent adjustment *(b)*		51			58	
Net interest revenue		$ 3,138			$ 3,026	
Net interest margin			1.03 %			0.96 %
Percentage of assets attributable to foreign offices *(c)*	29%			30%		
Percentage of liabilities attributable to foreign offices *(c)*	36			37		

Note: Interest and average rates were calculated on a taxable equivalent basis using dollar amounts in thousands and actual number of days in the year.

(a) Includes fees of $10 million in 2016 and $21 million in 2015 . Non-accrual loans are included in the average loans; the associated income, which was recognized on a cash basis, is included in interest income.

(b) The tax equivalent adjustment relates to tax-exempt securities, primarily state and political subdivisions, based on the U.S. federal statutory tax rate of 35%, adjusted for applicable state income taxes, net of the related federal tax benefit.

(c) Includes the Cayman Islands branch office.

Noninterest expense

Noninterest expense *(dollars in millions)*		2017		2016		2015	2017 vs. 2016	2016 vs. 2015
Staff	$	**5,972**	$	5,733	$	5,837	**4 %**	(2)%
Professional, legal and other purchased services		**1,274**		1,185		1,230	**8**	(4)
Software		**744**		647		627	**15**	3
Net occupancy		**569**		590		600	**(4)**	(2)
Distribution and servicing		**419**		405		381	**3**	6
Sub-custodian		**250**		245		270	**2**	(9)
Furniture and equipment		**241**		247		280	**(2)**	(12)
Business development		**229**		245		267	**(7)**	(8)
Bank assessment charges		**220**		219		157	**—**	39
Other		**724**		721		804	**—**	(10)
Amortization of intangible assets		**209**		237		261	**(12)**	(9)
M&I, litigation and restructuring charges		**106**		49		85	**N/M**	N/M
Total noninterest expense	$	**10,957**	$	10,523	$	10,799	**4 %**	(3)%
Staff expense as a percentage of total revenue		**38%**		38%		38%		
Full-time employees at period end		**52,500**		52,000		51,200	**1 %**	2 %
Memo:								
Adjusted total noninterest expense excluding amortization of intangible assets and M&I, litigation and restructuring charges – Non-GAAP	$	**10,642**	$	10,237	$	10,453	**4 %**	(2)%

Total noninterest expense increased 4% compared with 2016 . The increase primarily reflects higher staff, software and professional, legal and other purchased services expenses.

We expect our technology-related expenses, including staff expense, to increase as a result of our continued investment in technology infrastructure and platforms. We also expect to incur expenses in 2018 as a result of additional severance charges and other actions that we may take after completing our review of our businesses, as well as the continued execution of our real estate strategy.

Staff expense

Staff expense consists of:

- compensation expense, which includes:
  - salary expense, primarily driven by headcount;
  - the cost of temporary services and overtime; and -
  severance expense;
- incentive expense, which includes:
  - additional compensation earned under incentive plans designed to reward a combination of individual, business unit and corporate performance goals; as well as,
  - stock-based compensation expense; and
- employee benefit expense, primarily payroll taxes, medical benefits, retirement benefits and pension expense.

Staff expense increased 4% compared with 2016. The increase primarily reflects higher incentive expense, driven by stronger performance, the annual employee merit increase and higher severance expense, partially offset by the favorable impact of a stronger U.S. dollar.

Non-staff expense

Non-staff expense includes certain expenses that vary with the levels of business activity and business investments. Non-staff expenses also include corporate activities related to technology, compliance, legal, productivity initiatives and business development.

Non-staff expense totaled $5.0 billion in 2017 , an increase of 4% compared with 2016 . The increase primarily reflects higher software and professional, legal and other purchased services expenses. The increase in software expense primarily reflects asset impairments and increased amortization. The increase in professional, legal and other purchased services expense primarily reflects higher consulting and purchased services expenses.

2016 compared with 2015

Noninterest expense decreased 3% , compared with 2015 . The decrease primarily reflects lower expenses in nearly all categories, driven by the favorable impact of a stronger U.S. dollar, lower staff, other, litigation and legal expenses and the benefit of the business improvement process. The decrease was partially offset by higher bank assessment charges, distribution and servicing and software expenses.

Income taxes

BNY Mellon recorded an income tax provision of $496 million (10.8% effective tax rate) in 2017 , including the estimated tax benefit of $710 million recorded in the fourth quarter of 2017 related to U.S. tax legislation. The income tax provision was $1.2 billion (24.9% effective tax rate) in 2016 and $1.0 billion (23.9% effective tax rate) in 2015 . For additional information, see Note 10 of the Notes to Consolidated Financial Statements.

We expect the effective tax rate to be approximately 21% in 2018 based on current income tax rates.

Review of businesses

We have an internal information system that produces performance data along product and service lines for our two principal businesses, Investment Management and Investment Services, and the Other segment.

Business accounting principles

Our business data has been determined on an internal management basis of accounting, rather than the generally accepted accounting principles used for consolidated financial reporting. These measurement principles are designed so that reported results of the businesses will track their economic performance.

For information on the accounting principles of our businesses, the primary types of revenue by business and how our businesses are presented and analyzed, see Note 22 of the Notes to Consolidated Financial Statements.

Business results are subject to reclassification when organizational changes are made. There were no significant organizational changes in 2017. The results are also subject to refinements in revenue and expense allocation methodologies, which are typically reflected on a prospective basis.

The results of our businesses may be influenced by client and other activities that vary by quarter. In the first quarter, incentives expense typically increases reflecting the vesting of long-term stock awards for retirement-eligible employees. In the third quarter, Depositary Receipts revenue is typically higher due to an increased level of client dividend payments. Also in the third quarter, volume-related fees may decline due to reduced client activity. In the third quarter, staff expense typically increases reflecting the annual employee merit increase. In the fourth quarter, we typically incur higher business development and marketing expenses. In our Investment Management business, performance fees are typically higher in the fourth quarter, as the fourth quarter represents the end of the measurement period for many of the performance fee-eligible relationships.

The results of our businesses may also be impacted by the translation of financial results denominated in foreign currencies to the U.S. dollar. We are primarily impacted by activities denominated in the British pound and the euro. On a consolidated basis and in our Investment Services business, we typically have more foreign currency denominated expenses than revenues. However, our Investment Management business typically has more foreign currency denominated revenues than expenses. Overall, currency fluctuations impact the year-over-year growth rate in the Investment Management business more than the Investment Services business. However, currency fluctuations, in isolation, are not expected to significantly impact net income on a consolidated basis.

The following table presents key market metrics at period end and on an average basis.

Key market metrics	2017	2016	2015	Increase (Decrease) 2017 vs. 2016	2016 vs. 2015
Standard & Poor's ("S&P") 500 Index *(a)*	**2674**	2239	2044	**19 %**	10 %
S&P 500 Index – daily average	**2449**	2095	2061	**17**	2
FTSE 100 Index *(a)*	**7688**	7143	6242	**8**	14
FTSE 100 Index – daily average	**7380**	6474	6590	**14**	(2)
MSCI EAFE *(a)*	**2051**	1684	1716	**22**	(2)
MSCI EAFE – daily average	**1887**	1645	1810	**15**	(9)
Barclays Capital Global Aggregate Bond SM Index *(a)(b)*	**485**	451	442	**8**	2
NYSE and NASDAQ share volume *(in billions)*	**752**	797	776	**(6)**	3
JPMorgan G7 Volatility Index – daily average *(c)*	**8.41**	10.54	9.97	**(20)**	6
Average interest on excess reserves paid by the Federal Reserve	**1.10%**	0.51%	0.26%	**59bps**	25bps
Foreign exchange rates vs. U.S. dollar:					
British pound *(a)*	**$ 1.35**	$ 1.23	$ 1.48	**10 %**	(17) %
British pound – average rate	**1.29**	1.35	1.53	**(4)**	(12)
Euro *(a)*	**1.20**	1.05	1.09	**14**	(4)
Euro – average rate	**1.14**	1.11	1.11	**3**	

(a) Period end.
(b) Unhedged in U.S. dollar terms.
(c) The JPMorgan G7 Volatility Index is based on the implied volatility in 3-month currency options.

Fee revenue in Investment Management, and to a lesser extent in Investment Services, is impacted by the value of market indices. At Dec. 31, 2017 , we estimate that a 5% change in global equity markets, spread evenly throughout the year, would impact fee revenue by less than 1% and diluted earnings per common share by $0.03 to $0.05 .

See Note 22 of the Notes to Consolidated Financial Statements for the consolidating schedules which show the contribution of our businesses to our overall profitability.

Investment Management business

(dollars in millions)		2017		2016		2015	2017 vs. 2016	2016 vs. 2015
Revenue:								
Investment management fees:								
Mutual funds	**$**	**1,286**	$	1,210	$	1,208	**6 %**	— %
Institutional clients		**1,455**		1,380		1,425	**5**	(3)
Wealth management		**687**		642		630	**7**	2
Investment management fees *(a)*		**3,428**		3,232		3,263	**6**	(1)
Performance fees		**94**		60		97	**57**	(38)
Investment management and performance fees		**3,522**		3,292		3,360	**7**	(2)
Distribution and servicing		**207**		192		152	**8**	26
Other *(a)*		**(61)**		(60)		75	**N/M**	N/M
Total fee and other revenue *(a)*		**3,668**		3,424		3,587	**7**	(5)
Net interest revenue		**329**		327		319	**1**	3
Total revenue		**3,997**		3,751		3,906	**7**	(4)
Provision for credit losses		**2**		6		(1)	**N/M**	N/M
Noninterest expense (ex. amortization of intangible assets)		**2,794**		2,696		2,762	**4**	(2)
Amortization of intangible assets		**60**		82		97	**(27)**	(15)
Total noninterest expense		**2,854**		2,778		2,859	**3**	(3)
Income before taxes	**$**	**1,141**	$	967	$	1,048	**18 %**	(8)%
Income before taxes (ex. amortization of intangible assets) – Non-GAAP	**$**	**1,201**	$	1,049	$	1,145	**14 %**	(8)%
Pre-tax operating margin		**29%**		26%		27%		
Adjusted pre-tax operating margin – Non-GAAP *(b)*		**34%**		32%		32%		
Average balances:								
Average loans	**$**	**16,565**	$	15,015	$	12,545	**10 %**	20 %
Average deposits	**$**	**13,615**	$	15,650	$	15,160	**(13)%**	3 %

(a) Total fee and other revenue includes the impact of the consolidated investment management funds, net of noncontrolling interests. See page 121 for a breakdown of the revenue line items in the Investment Management business impacted by the consolidated investment management funds. Additionally, other revenue includes asset servicing, treasury services, foreign exchange and other trading revenue and investment and other income.

(b) Excludes amortization of intangible assets, provision for credit losses and distribution and servicing expense. See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 118 for the reconciliation of this Non-GAAP measure.

AUM trends *(a)(b)* *(dollars in billions)*	**2017**	2016	2015	2014	2013
AUM at period end, by product type: *(b)*					
Equity	**$ 161**	$ 153	$ 160	$ 183	$ 196
Fixed income	**206**	186	196	193	187
Index	**350**	312	319	351	318
Liability-driven investments *(c)*	**667**	554	511	501	403
Multi-asset and alternative investments	**214**	181	167	167	162
Cash	**295**	262	272	291	291
Total AUM	**$ 1,893**	$ 1,648	$ 1,625	$ 1,686	$ 1,557
AUM at period end, by client type:					
Institutional	**$ 1,346**	$ 1,182	$ 1,127	$ 1,164	$ 1,047
Mutual funds	**453**	381	420	438	426
Private client	**94**	85	78	84	84
Total AUM	**$ 1,893**	$ 1,648	$ 1,625	$ 1,686	$ 1,557
Changes in AUM: *(b)*					
Beginning balance of AUM	**$ 1,648**	$ 1,625	$ 1,686	$ 1,557	$ 1,349
Net inflows (outflows):					
Long-term strategies:					
Equity	**(14)**	(15)	(31)	(9)	1
Fixed income	**6**	(5)	(1)	3	12
Liability-driven investments *(c)*	**50**	26	35	46	65
Multi-asset and alternative investments	**8**	12	9	2	2
Total long-term active strategies inflows	**50**	18	12	42	80
Index	**(17)**	(32)	(29)	5	18
Total long-term strategies inflows (outflows)	**33**	(14)	(17)	47	98
Short-term strategies:					
Cash	**30**	(9)	(18)	1	5
Total net inflows (outflows)	**63**	(23)	(35)	48	103
Net market impact/other	**106**	181	(8)	122	94
Net currency impact	**76**	(137)	(36)	(41)	11
Acquisition	**—**	2	18		
Ending balance of AUM	**$ 1,893**	$ 1,648	$ 1,625	$ 1,686	$ 1,557

(a) Excludes securities lending cash management assets and assets managed in the Investment Services business.
(b) In 2017, the AUM in our Wealth Management business and our multi-asset strategies has been reclassified into multi-asset and alternative investments. This reclassification does not change total AUM. All prior periods have been restated.
(c) Includes currency overlay AUM.

Business description

With $1.9 trillion under management, our Investment Management business is the seventh largest global asset manager and includes our Wealth Management business and specialist investment boutiques.

Our Investment Management boutiques deliver a highly diversified portfolio of investment strategies independently, and through our global distribution network, to institutional and retail clients globally. The boutiques offer a broad range of actively managed equity, fixed income, alternative and liability-driven investments, along with passive products and cash management. Each boutique follows its own investment approach to innovate and develop investment solutions designed to deliver performance returns and outcomes that meet the investing goals of an increasingly base. Our multi-boutique model is designed to provide the best elements of investment focus and infrastructure at scale for the benefit of clients.

BNY Mellon completed the sale of CenterSquare Investment Management in early 2018 and announced the consolidation of Mellon Capital Management, Standish Mellon Asset Management, and The Boston Company Asset Management effective in the first quarter of 2018.

In addition to the investment boutiques, Investment Management has multiple global distribution entities which are responsible for distributing investment products manufactured by the investment boutiques. In addition, The Dreyfus Corporation and its affiliate, MBSC Securities Corporation, are responsible for management and distribution of our U.S. mutual funds, and certain offshore money

sophisticated client	market funds.

BNY Mellon Wealth Management provides investment management, custody, wealth and estate planning and private banking services, and conducts business globally. BNY Mellon Wealth Management has more than $200 billion in total private client assets as of Dec. 31, 2017 , and an extensive network of offices in the U.S. and internationally.

The results of the Investment Management business are driven by the period end, average and mix of AUM, as well as the level of activity in client accounts. The overall level of AUM for a given period is determined by:

- the beginning level of AUM;
- the net flows of new assets during the period resulting from new business wins and existing client enrichments, reduced by the loss of clients and withdrawals; and
- the impact of market price appreciation or depreciation, acquisitions or divestitures and foreign exchange rates.

The mix of AUM is determined principally by client asset allocation decisions among equity, fixed income, passive products, cash, liability-driven investments and multi-asset and alternative investments.

Managed equity assets typically generate higher percentage fees than liability-driven investments and fixed-income assets. Also, actively managed assets typically generate higher management fees than indexed or passively managed assets of the same type.

Investment management fees are dependent on the overall level and mix of AUM and the management fees expressed in basis points (one-hundredth of one percent) charged for managing those assets. Management fees are typically subject to fee schedules based on the overall level of assets managed for a single client or by individual asset class and style. This is most common for institutional clients where we typically manage substantial assets for individual accounts.

Performance fees are generally calculated as a percentage of a portfolio's performance in excess of a benchmark index or a peer group's performance.

A key driver of organic growth in investment management and performance fees is the amount of net new AUM flows. Overall market conditions are also key drivers, with a significant long-term economic driver being growth of global financial assets.

Net interest revenue is determined by loan and deposit volumes and the interest rate spread between customer rates and internal funds transfer rates on loans and deposits. Expenses in the Investment Management business are mainly driven by staffing costs, incentives and distribution and servicing expense.

Review of financial results

AUM increased 15% compared with Dec. 31, 2016 primarily reflecting higher market values, the favorable impact of a weaker U.S. dollar (principally versus the British pound) and net inflows.

Net long-term inflows of $33 billion in 2017 were a result of $50 billion of inflows into actively managed strategies, primarily liability-driven investments, and $17 billion of outflows from index strategies. Net short-term inflows were $30 billion in 2017 . Market and regulatory trends have resulted in increased demand for lower fee asset management products, and for performance-based fees.

Total revenue was $4.0 billion , an increase of 7% compared with 2016 . The increase primarily reflects higher investment management and performance fees.

Revenue generated in the Investment Management business included 41% from non-U.S. sources in both 2017 and 2016 .

Investment management fees in the Investment Management business increased 6% compared with 2016 . The increase reflects higher equity market values and money market fees, partially offset by the unfavorable impact of a stronger U.S. dollar (principally versus the British pound). On a constant currency basis, investment management fees increased 7% (Non-GAAP) compared with 2016.

Performance fees increased 57% compared with 2016 primarily reflecting liability-driven investment strategies.

Distribution and servicing fees increased 8% compared with 2016 primarily reflecting higher money market fees.

Other revenue decreased slightly compared with 2016 , reflecting higher payments to Investment Services related to higher money market fees, primarily offset by lower losses on hedging activity.

Net interest revenue increased 1% compared with 2016 . The increase primarily reflects higher interest rates and average loans, partially offset by lower average deposits. Average loans increased 10% compared with 2016 , while average deposits decreased 13% compared with 2016 .

Noninterest expense, excluding amortization of intangible assets, was $2.8 billion , an increase of $98 million , or 4% , compared with 2016 . The increase compared with 2016 primarily reflects higher incentive, distribution and servicing and severance expenses, partially offset by the favorable impact of a stronger U.S. dollar.

2016 compared with 2015

Income before taxes decreased 8% compared with 2015, primarily reflecting revenue decline of 4% , partially offset by a 2% decrease in noninterest expense, excluding amortization of intangible assets. Fee and other revenue decreased 5% primarily reflecting lower investment management and performance fees and losses on hedging activity. The decrease in investment management and performance fees primarily reflects the unfavorable impact of a stronger U.S. dollar and net outflows, partially offset by higher money market fees and higher market values. Net interest revenue increased 3% primarily due to higher average loans and higher rates on deposits, partially offset by the 2016 change in internal crediting rates. Noninterest expense, excluding amortization of intangible assets, decreased $66 million, or 2% , primarily driven by the favorable impact of a stronger U.S. dollar and lower incentive expense, partially offset by higher distribution and servicing expense as a result of lower money market fee waivers.

Investment Services business

(dollar amounts in millions, unless otherwise noted)	**2017**	2016	2015	**2017 vs. 2016**	2016 vs. 2015
Revenue:					
Investment services fees:					
Asset servicing	**$ 4,286**	$ 4,141	$ 4,098	**4 %**	1 %
Clearing services	**1,549**	1,399	1,370	**11**	2
Issuer services	**975**	1,024	976	**(5)**	5
Treasury services	**555**	541	546	**3**	(1)
Total investment services fees	**7,365**	7,105	6,990	**4**	2
Foreign exchange and other trading revenue	**620**	663	722	**(6)**	(8)
Other *(a)*	**542**	531	465	**2**	14
Total fee and other revenue	**8,527**	8,299	8,177	**3**	1
Net interest revenue	**3,058**	2,797	2,622	**9**	7
Total revenue	**11,585**	11,096	10,799	**4**	3
Provision for credit losses	**(7)**	8	28	**N/M**	N/M
Noninterest expense (ex. amortization of intangible assets)	**7,598**	7,187	7,340	**6**	(2)
Amortization of intangible assets	**149**	155	162	**(4)**	(4)
Total noninterest expense	**7,747**	7,342	7,502	**6**	(2)
Income before taxes	**$ 3,845**	$ 3,746	$ 3,269	**3 %**	15 %
Income before taxes (ex. amortization of intangible assets) – Non-GAAP	**$ 3,994**	$ 3,901	$ 3,431	**2 %**	14 %
Pre-tax operating margin	**33%**	34%	30%		
Adjusted pre-tax operating margin (ex. provision for credit losses and amortization of intangible assets) – Non-GAAP	**34%**	35%	32%		
Investment services fees as a percentage of noninterest expense (ex. amortization of intangible assets)	**97%**	99%	95%		
Securities lending revenue	**$ 168**	$ 170	$ 153	**(1)%**	11 %
Metrics:					
Average loans	**$ 40,142**	$ 44,740	$ 45,743	**(10)%**	(2)%
Average deposits	**$ 200,235**	$ 217,882	$ 233,833	**(8)%**	(7)%
AUC/A at period end *(in trillions) (b)*	**$ 33.3**	$ 29.9	$ 28.9	**11 %**	3 %
Market value of securities on loan at period end *(in billions) (c)*	**$ 408**	$ 296	$ 277	**38 %**	7 %
Asset servicing:					
Estimated new business wins (AUC/A) *(in billions)*	**$ 1,002**	$ 498	$ 1,191		
Clearing services:					
Average active clearing accounts (U.S. platform) (*in thousands)*	**6,137**	5,949	6,023	**3 %**	(1)%
Average long-term mutual fund assets (U.S. platform)	**$ 487,845**	$ 431,937	$ 451,924	**13 %**	(4)%
Average investor margin loans (U.S. platform)	**$ 9,810**	$ 10,772	$ 11,627	**(9)%**	(7)%
Depositary Receipts:					
Number of sponsored programs	**886**	1,062	1,145	**(17)%**	(7)%
Broker-Dealer:					
Average tri-party repo balances (*in billions)*	**$ 2,502**	$ 2,183	$ 2,156	**15 %**	1 %

(a) Other revenue includes investment management fees, financing-related fees, distribution and servicing revenue and investment and other income.
(b) Includes the AUC/A of CIBC Mellon of $1.3 trillion at Dec. 31, 2017 , $1.2 trillion at Dec. 31, 2016 and $1.0 trillion at Dec. 31, 2015 .
(c) Represents the total amount of securities on loan in our agency securities lending program managed by the Investment Services business. Excludes securities for which BNY Mellon acts as agent on behalf of CIBC Mellon clients, which totaled $71 billion at Dec. 31, 2017 , $63 billion at Dec. 31, 2016 and $55 billion at Dec. 31, 2015 .

Business description

BNY Mellon Investment Services provides business and technology solutions across the investments process to entities including financial institutions, corporations, foundations and endowments, public funds and government agencies.

We are one of the leading global investment services providers with $33.3 trillion of AUC/A at Dec. 31, 2017 .

- We are the primary provider of U.S. government securities clearance and a provider of non-U.S. government securities clearance. We provide services to settle securities transactions in approximately 100 markets.
- We are a leading provider of tri-party repo collateral management services with approximately $2.5 trillion serviced globally including approximately $1.7 trillion of the U.S. tri-party repo market.
- Our agency securities lending program is one of the largest lenders of U.S. and non-U.S. securities, servicing a lendable asset pool of approximately $3.4 trillion in 34 separate markets.
- We serve as trustee and/or paying agent on more than 50,000 debt-related issuances globally.
- As one of the largest providers of depositary receipts services in the world, we served as depositary for 886 sponsored American and global depositary receipts programs at Dec. 31, 2017 , acting in partnership with leading companies from 58 countries.

We offer asset servicing, clearing services, issuer services and treasury services to our clients. BNY Mellon's comprehensive suite of asset servicing solutions includes: custody, foreign exchange, fund services, securities finance, investment manager outsourcing, performance and risk analytics, alternative investment services, broker-dealer services, collateral management and liquidity services.

As one of the largest fund accounting providers and a trusted partner, we offer services for the safekeeping of assets in capital markets globally. These services include financial reporting, tax reporting services, calculating and reporting net asset values ("NAVs"), computing yields, maintaining brokerage account records, and providing administrative support to clients so they may meet their Securities and Exchange Commission ("SEC") and other compliance requirements.

Our alternative investment services and structured products business provides a full range of solutions for alternative investment managers, including prime custody, fund accounting, and client and regulatory reporting services. We also support exchange-traded funds and unit investment trusts, providing fund administration, custody, basket creation and dissemination, authorized participant interaction and order processing, among other services.

Securities finance delivers securities lending and financing solutions on both an agency and principal basis. The products support a diverse group of client segments, including pension funds, asset managers (including hedge and liquid alternative funds), sovereigns and other institutional clients.

In liquidity services, our market leading portal enables cash investments for institutional clients via money market funds, deposit products, and direct investments in money market securities, and includes fund research and analytics.

Our broker-dealer services business clears and settles equity and fixed-income transactions globally and serves as custodian for tri-party repo collateral worldwide.

Clearing services, primarily Pershing LLC, an indirect subsidiary of BNY Mellon ("Pershing") and its affiliates, provides business and technology solutions to financial organizations globally, delivering dependable operational support, robust trading services, flexible technology, an expansive array of investment and retirement solutions, practice management support and service excellence. We have approximately 1,400 clients and we effectively serve their more than 100,000 advisors and staff, 7 million accounts, and over $1 trillion in client assets.

Our collateral services include collateral management, administration and segregation. We offer innovative solutions and industry expertise which helps financial institutions and institutional investors to mine opportunities from liquidity, financing, risk and balance sheet challenges.

Our corporate trust business delivers a full range of issuer and related investor services, including trustee, paying agency, fiduciary, escrow and other financial services. We are a leading provider to the debt capital markets, providing customized and market-driven solutions to investors, bondholders and lenders.

Our treasury services include customizable solutions and innovative technology that deliver high-quality cash management, payment and trade support for corporate and institutional global treasury needs.

We also provide credit facilities and solutions to support our clients globally.

Role of BNY Mellon, as a trustee, for mortgage-backed securitizations

BNY Mellon acts as trustee and document custodian for certain mortgage-backed security (“MBS”) securitization trusts. The role of trustee for MBS securitizations is limited; our primary role as trustee is to calculate and distribute monthly bond payments to bondholders. As a document custodian, we hold the mortgage, note, and related documents provided to us by the loan originator or seller and provide periodic reporting to these parties. BNY Mellon, either as document custodian or trustee, does not receive mortgage underwriting files (the files that contain information related to the creditworthiness of the borrower). As trustee or custodian, we have no responsibility or liability for the quality of the portfolio; we are liable only for performance of our limited duties as described above and in the trust documents. BNY Mellon is indemnified by the servicers or directly from trust assets under the governing agreements. BNY Mellon may appear as the named plaintiff in legal actions brought by servicers in foreclosure and other related proceedings because the trustee is the nominee owner of the mortgage loans within the trusts.

BNY Mellon also has been named as a defendant in legal actions brought by MBS investors alleging that the trustee has expansive duties under the governing agreements, including to investigate and pursue claims against other parties to the MBS transaction. For additional information on our legal proceedings related to this matter, see Note 20 of the Notes to Consolidated Financial Statements.

Review of financial results

AUC/A increased 11% compared with Dec. 31, 2016 to a record $33.3 trillion , reflecting higher market values, the favorable impact of a weaker U.S. dollar and net new business. AUC/A consisted of 37% equity securities and 63% fixed-income securities at Dec. 31, 2017 , compared with 34% equity securities and 66% fixed-income securities at Dec. 31, 2016 .

Investment services fees were $7.4 billion , an increase of 4% compared with 2016 and, reflecting the following factors:

- Asset servicing fees (custody, fund services, broker-dealer services, securities finance, collateral management and liquidity services) were $4.3 billion compared with $4.1 billion in 2016 . The increase compared with 2016 primarily reflects higher equity market values, net new business, including growth in collateral management, and higher money market fees, partially offset by the downsizing of the UK transfer agency business.
- Clearing services fees were $1.5 billion compared with $1.4 billion in 2016 . The increase compared with 2016 was primarily driven by higher money market fees and growth in long-term mutual fund assets.
- Issuer services fees (Depositary Receipts and Corporate Trust) were $975 million compared with $1.0 billion in 2016 . The decrease compared with 2016 primarily reflects lost business and lower volumes from weaker cross-border settlement activity in Depositary Receipts.
- Treasury services fees (global payments, trade finance and cash management) were $555 million compared with $541 million in 2016 primarily reflecting higher payment volumes, partially offset by higher compensating balance credits provided to clients, which reduces fee revenue and increases net interest revenue.

Market and regulatory trends are driving investable assets toward lower fee asset management products at reduced margins for our clients. These dynamics are also negatively impacting our investment services fees. However, at the same time, these trends are providing additional outsourcing opportunities as clients and other market participants seek to comply with new regulations and reduce their operating costs.

Foreign exchange and other trading revenue totaled $620 million compared with $663 million in 2016 . The decrease primarily reflects lower volatility, partially offset by higher volumes.

Other revenue was $542 million compared with $531 million in 2016 . The increase primarily reflects higher payments from Investment Management related to higher money market fees, partially offset by certain fees paid to introducing brokers.

Net interest revenue was $3.1 billion compared with $2.8 billion in 2016 . The increase primarily reflects higher interest rates, partially offset by lower average deposit and loan balances.

Noninterest expense, excluding amortization of intangible assets, was $7.6 billion compared with $7.2 billion in 2016 . The increase primarily reflects higher staff expense, including severance, litigation, additional technology-related costs and asset impairments.

2016 compared with 2015

Income before taxes was $3.7 billion in 2016 compared with $3.3 billion in 2015 . Income before taxes, excluding amortization of intangible assets (Non-GAAP), increased $470 million , or 14% . Fee and other revenue increased $122 million , or 1% , compared with 2015 , reflecting higher investment services fees driven by higher issuer services, asset servicing and clearing services fees, primarily reflecting higher money market fees, and higher other revenue related to higher payments from Investment Management, partially offset by lower foreign exchange and other trading revenue. The $175 million increase in net interest revenue primarily reflects changes in internal crediting rates for deposits, partially offset by a decrease in average deposit balances. Noninterest expense, excluding intangible amortization, decreased $153 million , or 2% , compared with 2015 , primarily due to lower litigation, temporary services, sub-custodian, legal and other purchased services expenses, partially offset by higher bank assessment charges.

Other segment

(in millions)	**2017**	2016	2015
Revenue:			
Fee and other revenue	**$ 7**	$ 366	$ 336
Net interest (expense) revenue	**(79)**	14	85
Total revenue	**(72)**	380	421
Provision for credit losses	**(19)**	(25)	133
Noninterest expense (ex. amortization of intangible assets and M&I and restructuring charges (recoveries))	**345**	390	434
Amortization of intangible assets	**—**	—	2
M&I and restructuring charges (recoveries)	**2**	4	(2)
Total noninterest expense	**347**	394	434
(Loss) income before taxes	**$ (400)**	$ 11	$ (146)
(Loss) income before taxes (ex. amortization of intangible assets, M&I and restructuring charges (recoveries)) – Non-GAAP	**$ (398)**	$ 15	$ (146)
Average loans and leases	**$ 1,232**	$ 1,926	$ 2,384

Description of segment

The Other segment primarily includes:

- the leasing portfolio;
- corporate treasury activities, including our investment securities portfolio;
- derivatives and other trading activity;
- corporate and bank-owned life insurance;
- renewable energy investments; and
- business exits.

Revenue primarily reflects:

- net interest revenue and lease-related gains (losses) from leasing operations;
- net interest revenue from corporate treasury activity;
- fee and other revenue from corporate and bank- owned life insurance and business exits; and

- gains (losses) associated with investment securities and other assets, including renewable energy.

Expenses include:

- M&I expenses and corporate-level restructuring charges;
- direct expenses supporting leasing, investing, and funding activities; and
- expenses not directly attributable to the Investment Management and Investment Services operations.

Review of financial results

Loss before taxes was $400 million in 2017 compared with income before taxes of $11 million in 2016 .

Total fee and other revenue decreased $359 million compared with 2016 , primarily reflecting the impact of U.S. tax legislation on our investments in renewable energy investments and lower net securities gains.

Net interest expense was $79 million in 2017 compared with net interest revenue of $14 million in 2016. The $93 million decrease primarily reflects the impact of interest rate hedging activities and leasing-related adjustments, partially offset by higher interest rates.

Noninterest expense, excluding amortization of intangible assets and M&I and restructuring charges (recoveries), decreased $45 million compared with 2016 . The decrease was primarily driven by lower staff and other expenses.

2016 compared with 2015

Income before taxes was $11 million in 2016 compared with a loss of $146 million in 2015 . Total revenue decreased $41 million primarily driven by lower other income driven by the impact of increased investments in renewable energy, and results of the leasing portfolio inclusive of changes to internal transfer pricing in 2016 , partially offset by the positive impact of foreign currency hedging activity. The provision for credit losses was a credit of $25 million in 2016 reflecting the receipt of trust assets from the bankruptcy proceedings of Sentinel in excess of the carrying value. The provision for credit losses was $133 million in 2015 reflecting the impairment charge related to Sentinel. Noninterest expense, excluding amortization of intangible assets and M&I and restructuring charges (recoveries), decreased $44 million primarily reflecting lower equipment expense and professional, legal and other purchased services, partially offset by higher software expense.

International operations

Our primary international activities consist of asset servicing and global payment services in our Investment Services business and asset management in our Investment Management business.

Our clients include central banks and sovereigns, financial institutions, asset managers, insurance companies, corporations, local authorities and high net worth individuals and family offices. Through our global network of offices, we have developed a deep understanding of local requirements and cultural needs, and we pride ourselves on providing dedicated service through our multilingual sales, marketing and client service teams.

At Dec. 31, 2017 , we had approximately 8,800 employees in Europe, the Middle East and Africa (“EMEA”), approximately 15,300 employees in the Asia-Pacific region (“APAC”) and approximately 700 employees in other global locations, primarily Brazil.

We are the seventh largest global asset manager. At Dec. 31, 2017 , our international operations managed 51% of BNY Mellon’s AUM, compared with 49% at Dec. 31, 2016 . The increase in international AUM primarily resulted from the favorable impact of a weaker U.S. dollar (principally versus the British pound), net inflows and higher market values.

In Europe, we maintain a presence in Undertakings for Collective Investment in Transferable Securities Directives (“UCITS”). In Ireland, BNY Mellon provides fund administration services across domiciled and non-domiciled funds. We offer a full range of tailored solutions for investment companies, financial institutions and institutional investors in Germany.

We are a provider of non-U.S. government securities clearance, settling securities transactions in approximately 100 markets.

We have extensive experience providing trade and cash services to financial institutions and central banks outside of the U.S. In addition, we offer a broad range of servicing and fiduciary products to financial institutions, corporations and central banks depending on the state of market development. In emerging markets, we lead with global payments and issuer services, introducing other products as the markets mature. For more established markets, our focus is on global investment services.

We are also a full-service global provider of foreign exchange services, actively trading in over 100 of the world's currencies. We serve clients from trading desks located in Europe, Asia and North America.

Our financial results, as well as our levels of AUM and AUC/A, are impacted by translation from foreign currencies to the U.S. dollar. We are primarily impacted by activities denominated in the British pound and the euro. If the U.S. dollar depreciates against these currencies, the translation impact is a higher level of fee revenue, net interest revenue, noninterest expense and AUM and AUC/A. Conversely, if the U.S. dollar appreciates, the translated levels of fee revenue, net interest revenue, noninterest expense and AUM and AUC/A will be lower.

Foreign exchange rates vs. U.S. dollar	**2017**	2016	2015
Spot rate (at Dec. 31):			
British pound	**$ 1.3532**	$ 1.2323	$ 1.4799
Euro	**1.2009**	1.0538	1.0883
Yearly average rate:			
British pound	**$ 1.2885**	$ 1.3548	$ 1.5282
Euro	**1.1390**	1.1065	1.1100

International clients accounted for 36% of revenues in 2017 , compared with 34% in 2016 and 36% in 2015 . Net income from international operations was $1.8 billion in 2017 , compared with $1.6 billion in 2016 and $1.7 billion in 2015 .

In 2017 , revenues from EMEA were $4.0 billion , compared with $3.7 billion in 2016 and $3.9 billion 2015 . Revenues from EMEA increased 6% in 2017 compared with 2016 , primarily reflecting higher revenue in the Investment Services business driven by higher asset servicing fees, primarily reflecting higher equity market values, net new business, including growth in collateral management, partially offset by the downsizing of the UK transfer agency business. Revenues from EMEA also reflect higher revenue in the Investment Management business, driven by higher market values, money market fees and performance fees, partially offset by the unfavorable impact of a stronger U.S. dollar (principally versus the British pound). Our Investment Services business generated 67% and our Investment Management business generated 33% of EMEA revenues. Net income from EMEA was $1.2 billion in 2017 , compared with $1.0 billion in 2016 and $1.2 billion in 2015 .

Revenues from APAC were $997 million in 2017 , compared with $922 million in 2016 and $904 million in 2015 . Revenues from APAC increased 8% in 2017 compared with 2016 , primarily reflecting higher net interest revenue and treasury services fees in the Investment Services business. Our Investment Services businesses generated 80% and our Investment Management businesses generated 20% of APAC revenues. Net income from APAC was $426 million in 2017 , compared with $389 million in 2016 and $365 million in 2015 .

For additional information regarding our international operations, including certain key subjective assumptions used in determining the results, see Note 23 of the Notes to Consolidated Financial Statements.

Country risk exposure

We have exposure to certain countries with higher risk profiles. Exposure described below reflects the country of operations and risk of the immediate counterparty. We continue to monitor our exposure to these and other countries as part of our risk management process. See "Risk management" for additional information on how our exposures are managed.

BNY Mellon has a limited economic interest in the performance of assets of consolidated investment management funds, and therefore they are excluded from this disclosure.

Italy and Spain

Events in recent years have resulted in increased focus on Italy and Spain. We had net exposure of $1.8 billion to Italy and $2.1 billion to Spain at Dec. 31, 2017 . We had net exposure of $1.2 billion to Italy and $2.0 billion to Spain at Dec. 31, 2016 . At both Dec. 31, 2017 and Dec. 31, 2016 , exposure to Italy and Spain primarily consisted of investment grade sovereign debt. Investment securities exposure totaled $1.3 billion in Italy and $1.6 billion in Spain at Dec. 31, 2017 and $1.1 billion in Italy and $1.8 billion in Spain at Dec. 31, 2016 .

Brazil

Conditions in Brazil have resulted in increased focus on its economic and political stability. We have operations in Brazil providing investment services and investment management services. At Dec. 31, 2017 and Dec. 31, 2016 , we had total net exposure to Brazil of $1.4 billion and $1.3 billion, respectively. This included $1.3 billion at both periods in loans, which are primarily short-term trade finance loans extended to large financial institutions. At Dec. 31, 2017 and Dec. 31, 2016 , we held $136 million and $73 million, respectively, of non-investment grade sovereign debt.

Turkey

Events in recent years have resulted in increased focus on exposure to Turkey. We mainly provide treasury and issuer services, as well as foreign exchange products primarily to the top-10 largest financial institutions in the country. As of Dec. 31, 2017 and Dec. 31, 2016 , our exposure totaled $707 million and $713 million, respectively, consisting primarily of syndicated credit facilities and trade finance loans.

Cross-border risk

Cross-border outstandings are based on the Federal Financial Institutions Examination Council's ("FFIEC") regulatory guidelines for reporting cross-border risk. Cross-border outstandings in the table below include loans, acceptances, interest-bearing deposits with other banks, other interest-bearing investments, and other monetary assets which are denominated in U.S. dollars or other non-local currencies. Also included are local currency outstandings not hedged or funded by local borrowings. Under the FFIEC guidelines, cross-border outstandings are reported based on the domicile of the counterparty, issuer of collateral or guarantor.

Foreign assets are subject to the general risks attendant on the conduct of business in each foreign country, including economic uncertainties and each foreign government's regulations. In addition, our foreign assets may be affected by changes in demand or pricing resulting from fluctuations in currency exchange rates or other factors.

The table below shows our cross-border outstandings at Dec. 31 of each of the last three years where cross-border exposure exceeds 1.00% of total assets (denoted with "*") or exceeds 0.75% but less than or equal to 1.00% of total assets (denoted with "**").

Cross-border outstandings *(in millions)*	**Banks and other financial institutions** *(a)*	**Public sector**	**Commercial, industrial and other**	**Total cross-border outstandings** *(b)*
2017:				
Germany**	**$ 1,530**	**$ 1,344**	**$ 600**	**$ 3,474**
Canada**	**2,256**	**1**	**1,170**	**3,427**
France**	**295**	**2,519**	**130**	**2,944**
2016:				
France*	$ 1,662	$ 2,559	$ 109	$ 4,330
Germany*	2,398	1,408	357	4,163
Canada*	2,199	1	1,211	3,411
United Kingdom**	1,325	1,584	405	3,314
2015:				
United Kingdom*	$ 1,732	$ 569	$ 2,265	$ 4,566
France*	968	2,855	120	3,943
Germany**	1,882	1,666	363	3,911

(a) Primarily short-term interest-bearing deposits with banks. Also includes global trade finance loans.
(b) Excludes assets of consolidated investment management funds.

Emerging markets exposure

We determine our emerging markets exposures using the MSCI Emerging Markets (EM) IMI Index. Our emerging markets exposures totaled $11 billion at both Dec. 31, 2017 and Dec. 31, 2016 , as higher interest-bearing deposits with banks in China were offset by lower trade finance loans and interest-bearing deposits with banks in various countries.

Critical accounting estimates

Our significant accounting policies are described in Note 1 of the Notes to Consolidated Financial Statements under "Summary of significant accounting and reporting policies." Our critical accounting estimates are those related to the allowance for loan losses and allowance for lending-related commitments, fair value of financial instruments and derivatives, other-than-temporary impairment, goodwill and other intangibles, and pension accounting. Further information on policies related to the allowance for loan losses and allowance for lending-related commitments can be found under "Summary of significant accounting and reporting policies" in Note 1 of the Notes to Consolidated Financial Statements. Additionally, further information can be found in the Notes to Consolidated Financial Statements related to the following: the valuation of derivatives and securities where quoted market prices are not available can be found under "Fair value measurement" in Note 18; information on other-than-temporary impairment can be found in "Securities" in Note 4; policies related to goodwill and intangible assets can be found in "Goodwill and intangible assets" in Note 6; and information on pensions can be found in "Employee benefit plans" in Note 16.

Allowance for loan losses and allowance for lending-related commitments

The allowance for loan losses and allowance for lending-related commitments represent management's estimate of losses inherent in our credit portfolio. This evaluation process is subject to numerous estimates and judgments.

We utilize a quantitative methodology and qualitative framework for determining the allowance for loan losses and the allowance for lending-related commitments. Within this qualitative framework, management applies judgment when assessing internal risk factors and environmental factors to compute an additional allowance for each component of the loan portfolio.

The three elements of the allowance for loan losses and the allowance for lending-related commitments include the qualitative allowance framework. The three elements are:

- an allowance for impaired credits of $1 million or greater;
- an allowance for higher risk-rated credits and pass-rated credits; and
- an allowance for residential mortgage loans.

Our lending is primarily to institutional customers. As a result, our loans are generally larger than $1 million. Therefore, the first element, impaired credits, is based on individual analysis of all impaired loans of $1 million or greater. The allowance is measured by the difference between the recorded value of impaired loans and their impaired value. Impaired value is either the present value of the expected future cash flows from the borrower, the market value of the loan, or the fair value of the collateral, if the loan is collateral dependent.

The second element, higher risk-rated credits and pass-rated credits, is based on our incurred loss model. Individual credit analyses are performed on such loans before being assigned a credit rating. All borrowers are collectively evaluated based on their credit rating. The loss inherent in each loan incorporates the borrower's credit rating, facility rating and maturity. The loss given default, derived from the facility rating, incorporates a recovery expectation and an estimate of the use of the facility at default (usage given default). The borrower's probability of default is derived from the associated credit rating. Borrower ratings are reviewed at least annually and are periodically mapped to third-party databases, including rating agency and default and recovery databases, for ongoing consistency and validity. Higher risk-rated credits are reviewed quarterly.

The third element, the allowance for residential mortgage loans, is determined by segregating six mortgage pools into delinquency periods, ranging from current through foreclosure. Each of these delinquency periods is assigned a probability of default. A specific loss given default is assigned for each mortgage pool. BNY Mellon assigns all residential mortgage pools, except home equity lines of credit, a probability of default and loss given default based on default and loss data derived from internal historical data related to our residential mortgage portfolio. The resulting incurred loss factor (the probability of default multiplied by the loss given default) is applied against the loan balance to determine the allowance held for each pool. For home equity lines of credit, probability of default and loss given default are based on external data from third-party databases due to the small size of the portfolio and insufficient internal data.

The qualitative framework is used to determine an additional allowance for each portfolio based on the factors below:

Internal risk factors:

- Ratio of nonperforming loans to total non-margin loans;
- Ratio of criticized assets to total loans and lending-related commitments;
- Borrower concentration; and
- Significant concentrations in high-risk industries and countries.

Environmental risk factors:

- U.S. non-investment grade default rate;
- Unemployment rate; and
- Change in real gross domestic product.

The objective of the qualitative framework is to capture incurred losses that may not have been fully captured in the quantitative reserve, which is based primarily on historical data. Management determines the qualitative allowance each period based on judgment informed by consideration of internal and external risk factors and other considerations that may be deemed relevant during the period. Once determined in the aggregate, our qualitative allowance is then allocated to each of our loan classes based on the respective classes' quantitative allowance balances with the allocations adjusted, when necessary, for class specific risk factors.

For each risk factor, we calculate the minimum and maximum values, and percentiles in-between, to evaluate the distribution of our historical experience. The distribution of historical experience is compared to the risk factor's current quarter observed experience to assess the current risk inherent in the portfolio and overall direction/trend of a risk factor relative to our historical experience.

Based on this analysis, we assign a risk level–no impact, low, moderate, high and elevated–to each risk factor for the current quarter. Management assesses the impact of each risk factor to determine an aggregate risk level. We do not quantify the impact of any particular risk factor. Management's assessment of the risk factors, as well as the trend in the quantitative allowance, supports management's judgment for the overall required qualitative allowance. A smaller qualitative allowance may be required when our quantitative allowance has reflected incurred losses associated with the aggregate risk level. A greater qualitative allowance may be required if our quantitative allowance does not yet reflect the incurred losses associated with the aggregate risk level.

To the extent actual results differ from forecasts or management's judgment, the allowance for credit losses may be greater or less than future charge-offs.

The credit rating assigned to each credit is a significant variable in determining the allowance. If each credit were rated one grade better, the allowance would have decreased by $64 million, while if each credit were rated one grade worse, the allowance would have increased by $104 million. Similarly, if the loss given default were one rating worse, the allowance would have increased by $42 million, while if the loss given default were one rating better, the allowance would have decreased by $29 million. For impaired credits, if the net carrying value of the loans was 10% higher or lower, the allowance would have decreased or increased by less than $1 million, respectively.

Fair value of financial instruments and derivatives

The guidance included in Accounting Standards Codification ("ASC") 820, *Fair Value Measurement* , defines fair value, establishes a framework for measuring fair value, and expands disclosures about assets and liabilities measured at fair value. The standard also established a three-level hierarchy for fair value measurements based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date.

Fair value - Securities

Level 1 - Securities : Securities where valuations are based on recent quoted prices for identical securities in actively traded markets.

Level 2 - Securities : For securities where quotes from recent transactions are not available for identical securities, we determine fair value primarily based on pricing sources with reasonable levels of price transparency. The pricing sources employ financial models or obtain comparisons to similar instruments to arrive at “consensus” prices.

Specifically, the pricing sources obtain recent transactions for similar types of securities (e.g., vintage or position in the securitization structure) and ascertain variables such as discount rate and speed of prepayment for the type of transaction and apply such variables to similar types of bonds. We view these as observable transactions in the current market place and classify such securities as Level 2.

In addition, we have significant investments in more actively traded agency residential mortgage-backed securities (“RMBS”) and other types of securities such as sovereign debt. The pricing sources derive the prices for these securities largely from quotes they obtain from three major inter-dealer brokers. The pricing sources receive their daily observed trade price and other information feeds from the inter-dealer brokers.

We obtain prices for our Level 1 and Level 2 securities from multiple pricing sources. We have designed controls to develop an understanding of the pricing sources’ securities pricing methodology and have implemented specific internal controls over the valuation of securities.

As appropriate, we review the quality control procedures and pricing methodologies used by the pricing sources, including the process for obtaining prices provided by the pricing sources, their valuation methodology and controls for each class of security.

Prices received from pricing sources are subject to validation checks that help determine the completeness and accuracy of the prices. These validation checks are reviewed by management and, based on the results, may be subject to additional review and investigation. We also review securities with no price changes (stale prices) and securities with zero values.

We have a surveillance process in place to monitor the reasonableness of prices provided by the pricing sources. We utilize a hierarchy that compares security prices obtained from multiple pricing sources against established thresholds. Discrepancies that fall outside of these thresholds are challenged with the pricing services and adjusted if necessary.

If further research is required, we review and validate these prices with the pricing sources. We also validate prices from pricing sources by comparing prices received to actual observed prices from actions such as purchases and sales, when possible.

At Dec. 31, 2017 , approximately 99% of our securities were valued by pricing sources with reasonable levels of price transparency.

Level 3 - Securities : Where we have used our own cash flow models, which included a significant input into the model that was deemed unobservable, to estimate the value of securities, we classify them in Level 3. At both Dec. 31, 2017 and Dec. 31, 2016, we have no securities included in Level 3 of the fair value hierarchy.

See Note 18 of the Notes to Consolidated Financial Statements for details of our securities by ASC 820, *Fair Value Measurement* , hierarchy level.

Fair value - Derivative financial instruments

Level 1 - Derivative financial instruments : Includes derivative financial instruments that are actively traded on exchanges, principally listed equity options.

Level 2 - Derivative financial instruments : Includes the vast majority of our over-the-counter (“OTC”) derivative financial instruments. Derivatives classified as Level 2 are valued utilizing discounted cash flow analysis and financial models for which the valuation inputs are observable or can be corroborated, directly or indirectly, for substantially the full term of the instrument. Valuation inputs include interest rate yield curves, foreign exchange rates, equity prices, credit curves, option volatilities and other factors.

Where appropriate, valuation adjustments are made to account for various factors such as creditworthiness of the counterparty, credit worthiness of the Company and model and liquidity risks. Level 2 over-the-counter derivatives generally include interest rate swaps and options, foreign exchange forwards, foreign exchange swaps and options, forward rate agreements, equity swaps and options, and credit default swaps.

Level 3 - Derivative financial instruments : Level 3 derivatives include derivatives for which valuations are based on inputs that are unobservable and significant to the overall fair value measurement, and may include certain long-dated or highly structured contracts. At both Dec. 31, 2017 and Dec. 31, 2016, we have no derivatives included in Level 3 of the fair value hierarchy.

For details of our derivative financial instruments by level of the valuation hierarchy, see Note 18 of the Notes to Consolidated Financial Statements.

Fair value option

ASC 825, *Financial Instruments* , provides the option to elect fair value as an alternative measurement basis for selected financial assets, financial liabilities, unrecognized firm commitments and written loan commitments which are not subject to fair value under other accounting standards. Under ASC 825, *Financial Instruments* , fair value is used for both the initial and subsequent measurement of the designated assets, liabilities and commitments, with the changes in fair value recognized in income. See Note 19 of the Notes to Consolidated Financial Statements for additional disclosure regarding the fair value option.

Fair value - Judgments

In times of illiquid markets and financial stress, actual prices and valuations may significantly diverge from results predicted by models. In addition, other factors can affect our estimate of fair value, including market dislocations, incorrect model assumptions, and unexpected correlations. These valuation methods could expose us to materially different results should the models used or underlying assumptions be inaccurate. See Note 1 to the Notes to Consolidated Financial Statements.

Other-than-temporary impairment

The guidance included in ASC 320, *Investments - Debt and Equity Securities* , defines the other-than-temporary impairment ("OTTI") model for investments in debt securities. Under this guidance, a debt security is considered impaired if its fair value is less than its amortized cost basis. An OTTI is triggered if (1) the intent is to sell the security; (2) the security will more likely than not have to be sold before the impairment is recovered, or (3) the amortized cost basis is not expected to be recovered. When an entity does not intend to sell the security before recovery of its cost basis, it will recognize the credit component of an OTTI of a debt security in earnings and the remaining portion in accumulated other comprehensive income.

The determination of whether a credit loss exists is based on best estimates of the present value of cash flows to be collected from the debt security. Generally, cash flows are discounted at the effective interest rate implicit in the debt security at the time of acquisition. For debt securities that are beneficial interests in securitized financial assets and are not high credit quality, ASC 325, *Investments - Other* , provides that cash flows be discounted at the current yield used to accrete the beneficial interest.

For each security in the investment securities portfolio, an extensive, quarterly review is conducted to determine if an OTTI has occurred. For example, to determine if an unrealized loss on non-agency RMBS is other-than-temporary, we project total estimated defaults of the underlying assets (mortgages) and multiply that calculated amount by an estimate of realizable value upon sale of these assets in the marketplace (severity) in order to determine the projected collateral loss. We also evaluate the current credit enhancement underlying the bond to determine the impact on cash flows. If we determine that a given non-agency RMBS will be subject to a write-down or loss, we record the expected credit loss as a charge to earnings.

In recent years, improving home prices helped to stabilize the credit performance of non-agency RMBS transactions. This in turn enabled us to maintain generally stable assumptions for these transactions with regard to estimated defaults and the amount we expect to receive to cover the value of the loans underlying the securities. See Note 4 of the Notes to Consolidated Financial Statements for projected weighted-average default rates and loss severities at Dec. 31, 2017 and 2016 for the 2007, 2006 and late-2005 non-agency RMBS and the securities previously held in the Grantor Trust we established in connection with the restructuring of our investment securities portfolio in 2009. If actual delinquencies, default rates and loss severity assumptions worsen, we would expect additional impairment losses to be recorded in future periods.

At Dec. 31, 2017 , if we were to increase each of our projected loss severity and default rates by 100 basis points on each of the positions in our Alt-A, subprime and prime RMBS portfolios, including the securities previously held by the Grantor Trust, credit-related impairment charges on these securities would have increased by less than $1 million (pre-tax). If we were to decrease each of our projected loss severity and default rates by 100 basis points on each of the positions, credit-related impairment charges on these securities would have decreased by less than $1 million (pre-tax).

Goodwill and other intangibles

We initially record all assets and liabilities acquired in purchase acquisitions, including goodwill, indefinite-lived intangibles and other intangibles, in accordance with ASC 805, *Business Combinations* . Goodwill, indefinite-lived intangibles and other intangibles are subsequently accounted for in accordance with ASC 350, *Intangibles - Goodwill and Other.* The initial measurement of goodwill and intangibles requires judgment concerning estimates of the fair value of the acquired assets and liabilities. Goodwill ($17.6 billion at Dec. 31, 2017) and indefinite-lived intangible assets ($2.6 billion at Dec. 31, 2017) are not amortized but subject to tests for impairment annually or more often if events or circumstances indicate it is more likely than not they may be impaired. Other intangible assets are amortized over their estimated useful lives and are subject to impairment if events or circumstances indicate a possible inability to realize the carrying value.

BNY Mellon's three business segments include eight reporting units for which annual goodwill impairment testing is performed in accordance with ASC 350, *Intangibles - Goodwill and Other* . The Investment Management segment is comprised of two reporting units; the Investment Services segment is comprised of five reporting units and one reporting unit is included in the Other segment.

The goodwill impairment test compares the estimated fair value of the reporting unit with its carrying amount, including goodwill. If the estimated fair value of the reporting unit exceeds its carrying amount, goodwill of the reporting unit is considered not impaired. However, if the carrying amount of the reporting unit were to exceed its estimated fair value, an impairment loss would be recorded. A substantial goodwill impairment charge would not have a significant impact on our financial condition or our regulatory capital ratios, but could have an adverse impact on our results of operations. In addition, due to regulatory restrictions, the Company's subsidiary banks could be restricted from distributing available cash to the Parent, resulting in the Parent needing to issue additional long-term debt.

In the second quarter of 2017, we performed our annual goodwill test on all eight reporting units using an income approach, and in certain cases a combination of an income and market approach (which produced reasonably consistent results), to estimate the fair values of each reporting unit. Estimated cash flows used in the income approach were based on management's projections as of April 1, 2017. The discount rate applied to these cash flows ranged from 9.5% to 10.5% and incorporated a 6.0% market equity risk premium. Estimated cash flows extend many years into the future, and, by their nature, are difficult to estimate over such an extended time frame.

As a result of the annual goodwill impairment test of the eight reporting units, no goodwill impairment was recognized. The fair value of the Asset Management reporting unit, which is one of the two reporting units in the Investment Management segment, exceeded its carrying value by 16%. The Asset Management reporting unit had $7.3 billion of allocated goodwill. For the Asset Management reporting unit, in the future, changes in the assumptions, such as changes in the level of AUM and operating margin, could produce a non-cash goodwill impairment.

Key judgments in accounting for intangibles include useful life and classification between goodwill and indefinite-lived intangibles or other intangibles requiring amortization.

Indefinite-lived intangible assets are evaluated for impairment at least annually by comparing their fair values, estimated using discounted cash flow analyses, to their carrying values. Other amortizing intangible assets ($0.8 billion at Dec. 31, 2017) are evaluated for impairment if events and circumstances indicate a possible impairment. Such evaluation of other intangible assets would be initially based on undiscounted cash flow projections.

See Notes 1 and 6 of the Notes to Consolidated Financial Statements for additional information regarding goodwill, intangible assets and the annual and interim impairment testing.

Pension accounting

BNY Mellon has defined benefit pension plans covering approximately 13,300 U.S. employees and approximately 15,500 non-U.S. employees.

BNY Mellon has one qualified and several non-qualified defined benefit pension plans in the U.S. and several pension plans overseas. As of Dec. 31, 2017 , the U.S. plans accounted for 77% of the projected benefit obligation. The pension credit for BNY Mellon plans was $27 million in 2017 compared with a pension credit of $44 million in 2016 and a pension credit of $10 million in 2015 .

Effective June 30, 2015, the benefit accruals under the U.S. qualified and nonqualified defined benefit plans were frozen. This change resulted in no additional benefits being earned by participants in those plans based on service or pay after June 30, 2015. These plans were previously closed to new participants effective Dec. 31, 2010, at which time a non-elective contribution was added to the Company's defined contribution plan for employees not eligible to join the pension plan. Employees previously participating in the pension plan received this non-elective contribution starting July 1, 2015.

A total net pension credit of $72 million is expected to be recorded by BNY Mellon in 2018, assuming currency exchange rates at Dec. 31, 2017 . The expected increase in the net pension credit in 2018 compared with 2017 is primarily driven by a decrease in pension costs due to stronger than expected asset performance in the U.S. and certain foreign countries during 2017, partially offset by an increase in costs due to lower discount rates.

A number of key assumptions and measurement date values determine pension expense. The key elements include the long-term rate of return on plan assets, the discount rate, the market-related value of plan assets and the price used to value stock in the Employee Stock Ownership Plan ("ESOP"). Since 2015, these key elements have varied as follows:

(dollars in millions, except per share amounts)	**2018**	2017	2016	2015
Domestic plans:				
Long-term rate of return on plan assets	**6.625%**	6.625%	7.00%	7.25%
Discount rate *(a)*	**3.97%**	4.35%	4.48%	4.13%
Market-related value of plan assets *(b)*	**$ 5,238**	$ 5,026	$ 4,830	$ 4,696
ESOP stock price *(b)*	**$ 52.80**	$ 44.19	$ 41.66	$ 39.18
Net U.S. pension credit (expense)	**N/A**	**$ 76**	$ 77	$ 52
All other net pension credit (expense)				
Total net pension credit (expense)	**N/A**	**(49)**	(33)	(42)
	N/A	**$ 27**	$ 44	$ 10

(a) *As a result of the amendment to the U.S. pension plans, liabilities for 2015 were re-measured as of Jan. 29, 2015 at a discount rate of 3.73%.*

(b) *Market-related value of plan assets and ESOP stock price are for the beginning of the plan year. See "Summary of significant accounting and reporting policies" in Note 1 of the Notes to Consolidated Financial Statements. The market-related value of plan assets was $4,713 million as of the Jan. 29, 2015 re-measurement.*

The discount rate for U.S. pension plans was determined after reviewing equivalent rates obtained by discounting the pension plans' expected cash flows using various high-quality, long-term corporate bond yield curves. We also reviewed the results of several models that matched bonds to our pension cash flows. After reviewing the various indices and models, we selected a discount rate of 3.97% as of Dec. 31, 2017 .

The discount rates for foreign pension plans are based on high-quality corporate bond rates in countries that have an active corporate bond market. In those countries with no active corporate bond market, discount rates are based on local government bond rates plus a credit spread.

Our expected long-term rate of return on plan assets is based on anticipated returns for each applicable asset class. Anticipated returns are weighted for the expected allocation for each asset class and are based on forecasts for prospective returns in the equity and fixed-income markets, which should track the long-term historical returns for these markets. We also consider the growth outlook for U.S. and global economies, as well as current and prospective interest rates.

The market-related value of plan assets also influences the level of pension expense. Differences between expected and actual returns are recognized over five years to compute an actuarially derived market-related value of plan assets.

Unrecognized actuarial gains and losses are amortized over the future service period of active employees if they exceed a threshold amount. As of Dec. 31, 2017 , BNY Mellon had $1.3 billion of unrecognized losses which are being amortized. As a result of the amendment to the U.S. pension plans described above, future unrecognized actuarial gains and losses for the U.S. plans that exceed a threshold amount will be amortized over the average future life expectancy of plan participants with a maximum of 15 years.

The annual impacts of hypothetical changes in the key assumptions on pension costs are shown in the table below.

Pension expense *(dollar amounts in millions, except per share amounts)*	Increase in pension expense		(Decrease) in pension expense	
Long-term rate of return on plan assets	(100) bps	(50) bps	50 bps	100 bps
Change in pension expense	$ 64	$ 32	$ (32)	$ (64)
Discount rate	(50) bps	(25) bps	25 bps	50 bps
Change in pension expense	$ 29	$ 14	$ (13)	$ (25)
Market-related value of plan assets	(20) %	(10) %	10 %	20 %
Change in pension expense	$ 187	$ 93	$ (93)	$ (169)
ESOP share price	$ (10)	$ (5)	$ 5	$ 10
Change in pension expense	$ 5	$ 3	$ (3)	$ (5)

In addition to its pension plans, BNY Mellon has an ESOP. Benefits payable under The Bank of New York Mellon Corporation Pension Plan are offset by the equivalent value of benefits earned under the ESOP for employees who participated in the legacy Retirement Plan of The Bank of New York Company, Inc.

Consolidated balance sheet review

One of our key risk management objectives is to maintain a balance sheet that remains strong throughout market cycles to meet the expectations of our major stakeholders, including our shareholders, clients, creditors and regulators.

We also seek to verify that the overall liquidity risk, including intra-day liquidity risk, that we undertake stays within our risk appetite. The objective of our balance sheet management strategy is to maintain a balance sheet that is characterized by strong liquidity and asset quality, ready access to external funding sources at competitive rates and a strong capital structure that supports our risk-taking activities and is adequate to absorb potential losses. In managing the balance sheet, appropriate consideration is given to balancing the competing needs of maintaining sufficient levels of liquidity and complying with applicable regulations and supervisory expectations while optimizing profitability.

In 2017, we continued to maintain sufficient liquidity and comply with applicable regulations. Our overall liquidity position remained strong and is managed in accordance with the nature of our balance sheet and business model. Our LCR averaged 118% in the fourth quarter as we met the 100% fully phased-in regulatory requirement. Additionally, we increased the estimated fully phased-in SLR (Non-GAAP) to 5.9% at Dec. 31, 2017 from 5.6% at Dec. 31, 2016 . This is above the regulatory minimum of 5.0%, which became effective Jan. 1, 2018.

At Dec. 31, 2017 , total assets were $372 billion compared with $333 billion at Dec. 31, 2016 . The increase in total assets was primarily driven by higher interest-bearing deposits with the Federal Reserve and other central banks, partially offset by lower loans. Deposits totaled $244 billion at Dec. 31, 2017 and $221 billion at Dec. 31, 2016 , and were driven by higher interest-bearing deposits in non-U.S. offices. At Dec. 31, 2017 and Dec. 31, 2016 , total interest-bearing deposits were 51% of total interest-earning assets.

At Dec. 31, 2017 , we had $40 billion of liquid funds (which include interest-bearing deposits with banks and federal funds sold and securities purchased under resale agreements) and $97 billion of cash (including $92 billion of overnight deposits with the Federal Reserve and other central banks) for a total of $137 billion of available funds. This compares with available funds of $104 billion at Dec. 31, 2016 . Total available funds as a percentage of total assets were 37% at Dec. 31, 2017 compared with 31% at Dec. 31, 2016 . For additional information on our liquid funds and available funds, see "Liquidity and dividends."

Investment securities were $120 billion , or 32% of total assets, at Dec. 31, 2017 , compared with $115 billion , or 34% of total assets, at Dec. 31, 2016 . The higher level of securities primarily reflects additional investments in commercial MBS and agency RMBS, partially offset by a decrease in consumer asset-backed securities (“ABS”). For additional information on our investment securities portfolio, see “Investment securities” and Note 4 of the Notes to Consolidated Financial Statements.

Loans were $62 billion , or 17% of total assets, at Dec. 31, 2017 , compared with $64 billion , or 19% of total assets, at Dec. 31, 2016 . The decrease in loans was primarily driven by lower margin loans and loans to financial institutions. For additional information on our loan portfolio, see “Loans” and Note 5 of the Notes to Consolidated Financial Statements.

Long-term debt totaled $28 billion at Dec. 31, 2017 and $24 billion at Dec. 31, 2016 . The increase reflects issuances of $5 billion , partially offset by the maturity of $750 million and the redemption of trust preferred securities . For additional information on long-term debt, see “Liquidity and dividends” and Note 11 of the Notes to Consolidated Financial Statements.

The Bank of New York Mellon Corporation total shareholders’ equity increased to $41 billion from $39 billion at Dec. 31, 2016 . For additional information on our capital, see “Capital” and Note 13 of the Notes to Consolidated Financial Statements.

Investment securities

In the discussion of our investment securities portfolio, we have included certain credit ratings information because the information can indicate the degree of credit risk to which we are exposed. Significant changes in ratings classifications for our investment securities portfolio could indicate increased credit risk for us and could be accompanied by a reduction in the fair value of our investment securities portfolio.

The following table shows the distribution of our total investment securities portfolio.

Investment securities portfolio *(dollars in millions)*	Dec. 31, 2016 Fair value	2017 change in unrealized gain (loss)	**Dec. 31, 2017** Amortized cost	Fair value	Fair value as a % of amortized cost *(a)*	Unrealized gain (loss)	Ratings *(b)* AAA/AA-	A+/A-	BBB+/BBB-	BB+ and lower	Not rated
Agency RMBS	$ 47,715	$ (29)	$ **50,210**	$ **49,746**	99%	$ (464)	100%	—%	—%	—%	—%
U.S. Treasury	25,244	143	**24,951**	**24,848**	100	(103)	100	—			
Sovereign debt/sovereign guaranteed *(c)*	14,373	(84)	**13,998**	**14,128**	101	130	72	6	21	1	—
Non-agency RMBS *(d)*	1,357	3	**811**	**1,091**	85	280	—	1	3	85	11
Non-agency RMBS	718	18	**511**	**549**	98	38	7	4	21	67	1
European floating rate notes *(e)*	706	7	**275**	**271**	97	(4)	49	51			
Commercial MBS	8,037	38	**11,425**	**11,394**	100	(31)	99	1			
State and political subdivisions	3,396	22	**2,966**	**2,973**	100	7	80	17	—	—	3
Foreign covered bonds *(f)*	2,216	(5)	**2,604**	**2,615**	100	11	100	—			
Corporate bonds	1,396	1	**1,249**	**1,255**	101	6	17	69	14		
CLOs	2,598	6	**2,898**	**2,909**	100	11	98	—	—	1	1
U.S. government agencies	1,964	24	**2,570**	**2,603**	101	33	100	—			
Consumer ABS	1,727	5	**1,040**	**1,043**	100	3	93	—	5	2	—
Other *(g)*	2,833	(13)	**4,485**	**4,483**	100	(2)	82	16	—	—	2
Total investment securities	$ 114,280 *(h)*	**$ 136**	**$ 119,993**	**$ 119,908** *(h)*	**99%**	**$ (85)** *(h)(i)*	**93%**	**3%**	**3%**	**1%**	**—%**

(a) Amortized cost before impairments.
(b) Represents ratings by S&P or the equivalent.
(c) Primarily consists of exposure to UK, France, Germany, Spain, Italy and the Netherlands.
(d) These RMBS were included in the former Grantor Trust and their amortized cost was written down to fair value in 2009. We believe these RMBS would receive higher credit ratings if these ratings incorporated, as additional credit enhancements, the difference between the written-down amortized cost and the current face amount of each of these securities.
(e) Includes RMBS and commercial MBS. Primarily consists of exposure to UK and the Netherlands.
(f) Primarily consists of exposure to Canada, Australia, the Netherlands and Norway.
(g) Includes commercial paper with a fair value of $401 million and $700 million and money market funds with a fair value of $842 million and $963 million at Dec. 31, 2016 and Dec. 31, 2017 , respectively.
(h) Includes net unrealized losses on derivatives hedging securities available-for-sale of $211 million at Dec. 31, 2016 and $147 million at Dec. 31, 2017 .
(i) Unrealized gains of $230 million at Dec. 31, 2017 related to available-for-sale securities, net of hedges.

The fair value of our investment securities portfolio was $119.9 billion at Dec. 31, 2017 , compared with $114.3 billion at Dec. 31, 2016 . The higher level of securities primarily reflects additional investments in commercial MBS and agency RMBS, partially offset by a decrease in consumer ABS.

At Dec. 31, 2017 , the total investment securities portfolio had a net unrealized loss of $85 million , compared with a net unrealized loss of $221 million at Dec. 31, 2016 , including the impact of related hedges. The decrease in net unrealized pre-tax loss was primarily driven by a decline in long-term interest rates.

The unrealized gain, net of tax, on our available-for-sale investment securities portfolio included in accumulated other comprehensive income ("OCI") was $184 million at Dec. 31, 2017 , compared with $45 million at Dec. 31, 2016 .

At Dec. 31, 2017 , 93% of the securities in our portfolio were rated AAA/AA-, unchanged compared with Dec. 31, 2016 .

We routinely test our investment securities for OTTI. See "Critical accounting estimates" for additional information regarding OTTI.

The following table presents the amortizable purchase premium (net of discount) related to the investment securities portfolio and accretable discount related to the 2009 restructuring of the investment securities portfolio.

Net premium amortization and discount accretion of investment securities *(a)*

(dollars in millions)		**2017**	2016	2015
Amortizable purchase premium (net of discount) relating to investment securities:				
Balance at period end	**$**	**1,987**	$ 2,188	$ 2,319
Estimated average life remaining at period end *(in years)*		**5.0**	4.9	4.7
Amortization	**$**	**547**	$ 641	$ 693
Accretable discount related to the prior restructuring of the investment securities portfolio:				
Balance at period end	**$**	**274**	$ 315	$ 355
Estimated average life remaining at period end *(in years)*		**6.3**	6.2	6.1
Accretion	**$**	**100**	$ 102	$ 126

(a) Amortization of purchase premium decreases net interest revenue while accretion of discount increases net interest revenue. Both were recorded on a level yield basis.

The following table presents pre-tax net securities gains (losses) by type.

Net securities gains (losses)

(in millions)		**2017**	2016	2015
Non-agency RMBS	**$**	**4**	$ 8	$ 7
Foreign covered bonds		**—**	10	2
Agency RMBS		**(12)**	22	10
U.S. Treasury		**(16)**	4	45
Other		**27**	31	19
Total net securities gains	**$**	**3**	$ 75	$ 83

The following table shows the fair value of the European floating rate notes by geographical location at Dec. 31, 2017 . The net unrealized loss on these securities was $4 million at Dec. 31, 2017 , compared with $11 million at Dec. 31, 2016 .

European floating rate notes at Dec. 31, 2017 *(a)*

(in millions)		RMBS	Other	Total fair value
United Kingdom	$	97	$ 56	$ 153
Netherlands		118	—	118
Total fair value	$	215	$ 56	$ 271

(a) Forty-nine percent of these securities are in the AAA to AA- ratings category.

See Note 18 of the Notes to Consolidated Financial Statements for details of securities by level in the fair value hierarchy.

Equity investments

We have several equity investments recorded in other assets. These include equity method investments, including renewable energy, and investments in qualified affordable housing, Federal Reserve Bank stock, seed capital, private equity and other investments. The following table presents the carrying values at Dec. 31, 2017 and 2016 .

Equity investments	Dec. 31,	
(in millions)	**2017**	2016
Renewable energy investments	**$ 1,368**	$ 1,282
Equity in a joint venture and other investments:		
CIBC Mellon	**580**	509
Siguler Guff	**246**	256
ConvergEx	**—**	76
Other equity investments	**257**	222
Total equity in a joint venture and other investments	**$ 1,083**	$ 1,063
Qualified affordable housing project investments	**1,014**	914
Federal Reserve Bank stock	**477**	466
Seed capital	**288**	395
Federal Home Loan Bank stock	**82**	—
Private equity investments *(a)*	**55**	43
Total equity investments	**$ 4,367**	$ 4,163

(a) Represents investments in small business investment companies ("SBICs"), which are compliant with the Volcker Rule.

Renewable energy investments

We invest in renewable energy projects to receive an expected after-tax return, which consists of allocated renewable energy tax credits, tax deductions and cash distributions based on the operations of the project. The pre-tax losses on these investments are recorded in investment and other income on the consolidated income statement. The corresponding tax benefits and credits are recorded to the provision for income taxes on the income statement.

The impact of U.S. tax legislation on renewable energy investments resulted in a pre-tax accounting reduction of $279 million. This reduction was recorded in investment and other income, which was offset by the tax benefit from remeasurement of the related deferred tax liability. The net impact of these items was de minimis to net income.

For additional information on the fair value of certain seed capital investments and our private equity investments, see Note 7 of the Notes to Consolidated Financial Statements.

Loans

Total exposure – consolidated	Dec. 31, 2017			Dec. 31, 2016		
(in billions)	**Loans**	**Unfunded commitments**	**Total exposure**	Loans	Unfunded commitments	Total exposure
Non-margin loans:						
Financial institutions	**$ 13.1**	**$ 32.5**	**$ 45.6**	$ 14.7	$ 33.7	$ 48.4
Commercial	**2.9**	**18.0**	**20.9**	2.6	17.5	20.1
Subtotal institutional	**16.0**	**50.5**	**66.5**	17.3	51.2	68.5
Wealth management loans and mortgages	**16.5**	**1.1**	**17.6**	15.6	1.3	16.9
Commercial real estate	**4.9**	**3.5**	**8.4**	4.7	3.2	7.9
Lease financings	**1.3**	**—**	**1.3**	1.7	—	1.7
Other residential mortgages	**0.7**	**—**	**0.7**	0.9	—	0.9
Overdrafts	**5.1**	**—**	**5.1**	5.5	—	5.5
Other	**1.2**	**—**	**1.2**	1.2	—	1.2
Subtotal non-margin loans	**45.7**	**55.1**	**100.8**	46.9	55.7	102.6
Margin loans	**15.8**	**—**	**15.8**	17.6	0.1	17.7
Total	**$ 61.5**	**$ 55.1**	**$ 116.6**	$ 64.5	$ 55.8	$ 120.3

At Dec. 31, 2017 , total exposures of $116.6 billion decreased 3% compared with Dec. 31, 2016 , primarily reflecting lower exposure to financial institutions, margin loans and overdrafts, partially offset by higher commercial loans and wealth management loans and mortgages.

Our financial institutions and commercial portfolios comprise our largest concentrated risk. These portfolios comprised 57% of our total exposure at both Dec. 31, 2017 and Dec. 31, 2016 . Additionally, most of our overdrafts relate to financial institutions.

Financial institutions

The financial institutions portfolio is shown below.

Financial institutions portfolio exposure *(dollar amounts in billions)*	**Dec. 31, 2017**					Dec. 31, 2016		
	Loans	**Unfunded commitments**	**Total exposure**	**% Inv. grade**	**% due <1 yr.**	Loans	Unfunded commitments	Total exposure
Securities industry	**$ 3.6**	**$ 19.2**	**$ 22.8**	**98%**	**99%**	$ 3.8	$ 19.2	$ 23.0
Banks	**7.0**	**1.2**	**8.2**	**68**	**96**	7.9	2.0	9.9
Asset managers	**1.4**	**6.4**	**7.8**	**99**	**87**	1.5	6.2	7.7
Insurance	**0.1**	**3.5**	**3.6**	**99**	**15**	0.1	3.8	3.9
Government	**0.1**	**0.9**	**1.0**	**91**	**36**	0.1	0.9	1.0
Other	**0.9**	**1.3**	**2.2**	**98**	**66**	1.3	1.6	2.9
Total	**$ 13.1**	**$ 32.5**	**$ 45.6**	**93%**	**87%**	$ 14.7	$ 33.7	$ 48.4

The financial institutions portfolio exposure was $45.6 billion at Dec. 31, 2017 , compared with $48.4 billion at Dec. 31, 2016 . The decrease primarily reflects lower exposure in the banks, other and insurance portfolios.

Financial institution exposures are high-quality, with 93% of the exposures meeting the investment grade equivalent criteria of our internal credit rating classification at Dec. 31, 2017 . Each customer is assigned an internal credit rating, which is mapped to an equivalent external rating agency grade based upon a number of dimensions, which are continually evaluated and may change over time. The exposure to financial institutions is generally short-term. Of these exposures, 87% expire within one year and 21% expire within 90 days. In addition, 79% of the financial institutions exposure is secured. For example, securities industry clients and asset managers often borrow against marketable securities held in custody.

For ratings of non-U.S. counterparties, our internal credit rating is generally capped at a rating equivalent to the sovereign rating of the country where the counterparty resides, regardless of the internal credit rating assigned to the counterparty or the underlying collateral.

At Dec. 31, 2017 , the secured intraday credit provided to dealers in connection with their tri-party repo activity totaled $18.7 billion and was primarily included in the securities industry portfolio. Dealers secure the outstanding intraday credit with high-quality liquid collateral having a market value in excess of the amount of the outstanding credit.

Our bank exposure primarily relates to our global trade finance. These exposures are short-term in nature, with 96% due in less than one year. The investment grade percentage of our bank exposure was 68% at Dec. 31, 2017, compared with 69% at Dec. 31, 2016, reflecting our non-investment grade exposure to Brazil. Our exposure in Brazil includes $1.3 billion in loans, which are primarily short-term trade finance loans extended to large financial institutions.

The asset manager portfolio exposure was high-quality with 99% of the exposures meeting our investment grade equivalent ratings criteria as of Dec. 31, 2017 . These exposures are generally short-term liquidity facilities, with the vast majority to regulated mutual funds.

Commercial

The commercial portfolio is presented below.

Commercial portfolio exposure	**Dec. 31, 2017**					Dec. 31, 2016		
(dollar amounts in billions)	**Loans**	**Unfunded commitments**	**Total exposure**	**% Inv. grade**	**% due <1 yr.**	Loans	Unfunded commitments	Total exposure
Manufacturing	**$ 1.3**	**$ 6.1**	**$ 7.4**	**94%**	**21%**	$ 1.1	$ 6.7	$ 7.8
Services and other	**0.9**	**6.0**	**6.9**	**96**	**25**	0.6	4.3	4.9
Energy and utilities	**0.7**	**4.4**	**5.1**	**95**	**9**	0.6	4.7	5.3
Media and telecom	**—**	**1.5**	**1.5**	**95**	**15**	0.3	1.8	2.1
Total	**$ 2.9**	**$ 18.0**	**$ 20.9**	**95%**	**19%**	$ 2.6	$ 17.5	$ 20.1

The commercial portfolio exposure increased to $20.9 billion at Dec. 31, 2017 , from $20.1 billion at Dec. 31, 2016 , primarily reflecting higher exposure in the services and other portfolio, partially offset by lower exposure in the remaining portfolios.

Utilities-related exposure represents approximately 80% of the energy and utilities portfolio. The remaining exposure in the energy and utilities portfolio, which includes exposure to exploration and production companies, refining, pipelines and integrated companies, was 77% investment grade at Dec. 31, 2017 and 76% at Dec. 31, 2016 .

The following table summarizes the percentage of the financial institutions and commercial portfolio exposures that are investment grade.

Percentage of the portfolios that are investment grade	**Dec. 31, 2017**	2016	2015
Financial institutions	**93%**	92%	96%
Commercial	**95%**	94%	94%

Our credit strategy is to focus on investment grade clients that are active users of our non-credit services. The execution of our strategy has resulted in 93% of our financial institutions portfolio and 95% of our commercial portfolio rated as investment grade at Dec. 31, 2017 .

Wealth management loans and mortgages

Our wealth management exposure was $17.6 billion at Dec. 31, 2017 , compared with $16.9 billion at Dec. 31, 2016 . Wealth management loans and mortgages primarily consist of loans to high-net-worth individuals, which are secured by marketable securities and/or residential property. Wealth management mortgages are primarily interest-only, adjustable-rate mortgages with a weighted-average loan-to-value ratio of 62% at origination. In the wealth management portfolio, less than 1% of the mortgages were past due at Dec. 31, 2017 .

At Dec. 31, 2017 , the wealth management mortgage portfolio consisted of the following geographic concentrations: California - 24% ; New York - 18% ; Massachusetts - 11% ; Florida - 8% ; and other - 39% .

Commercial real estate

Our commercial real estate exposure totaled $ 8.4 billion at Dec. 31, 2017 , compared with $ 7.9 billion at Dec. 31, 2016 . Our income-producing commercial real estate facilities are focused on experienced owners and are structured with moderate leverage based on existing cash flows. Our commercial real estate lending activities also include construction and renovation facilities. Our client base consists of experienced developers and long-term holders of real estate assets. Loans are approved on the basis of existing or projected cash flows and supported by appraisals and knowledge of local market conditions. Development loans are structured with moderate leverage, and in many instances, involve some level of recourse to the developer.

At Dec. 31, 2017 , 58% of our commercial real estate portfolio was secured. The secured portfolio is diverse by project type, with 45% secured by residential buildings, 34% secured by office buildings, 12% secured by retail properties and 9% secured by other categories. Approximately 97% of the unsecured portfolio consists of real estate investment trusts (“REITs”) and real estate operating companies, which are both predominantly investment grade.

At Dec. 31, 2017 , our commercial real estate portfolio consists of the following concentrations: REITs and real estate operating companies - 41% ; New York metro - 39% ; and other - 20% .

Lease financings

The leasing portfolio exposure totaled $ 1.3 billion at Dec. 31, 2017 compared with $ 1.7 billion at Dec. 31, 2016 . At Dec. 31, 2017 , approximately 96% of the leasing portfolio exposure was investment grade, or investment grade equivalent.

At Dec. 31, 2017 , the lease financings portfolio consisted of exposures backed by well-diversified assets, including large-ticket transportation equipment, the largest consisting of both passenger and freight train cars. Assets are both domestic and foreign-based, with primary concentrations in the United States and Germany. Approximately 44% of the portfolio is additionally secured by highly rated securities and/or secured by letters of credit from investment grade issuers. Counterparty rating equivalents at Dec. 31, 2017 were as follows:

- 46% of the counterparties were A, or better;
- 50% were BBB; and
- 4% were non-investment grade.

Other residential mortgages

The other residential mortgages portfolio primarily consists of 1-4 family residential mortgage loans and totaled $708 million at Dec. 31, 2017 and $854 million at Dec. 31, 2016 . Included in this portfolio at Dec. 31, 2017 are $171 million of mortgage loans purchased in 2005, 2006 and the first quarter of 2007 that are predominantly prime mortgage loans, with a small portion of Alt-A loans. As of Dec. 31, 2017 , the purchased loans in this portfolio had a weighted-average loan-to-value ratio of 76% at origination and 12% of the serviced loan balance was at least 60 days delinquent. The properties securing the prime and Alt-A mortgage loans were located (in order of concentration) in California, Florida, Virginia, the tri-state area (New York, New Jersey and Connecticut) and Maryland.

To determine the projected loss on the prime and Alt-A mortgage portfolios, we calculate the total estimated defaults of these mortgages and multiply that amount by an estimate of realizable value upon sale in the marketplace (severity).

Overdrafts

Overdrafts primarily relate to custody and securities clearance clients. Overdrafts occur on a daily basis primarily in the custody and securities clearance business and are generally repaid within two business days.

Other loans

Other loans primarily include loans to consumers that are fully collateralized with equities, mutual funds and fixed-income securities.

Margin loans

Margin loans are collateralized with marketable securities, and borrowers are required to maintain a daily collateral margin in excess of 100% of the value of the loan. Margin loans included $4.2 billion at Dec. 31, 2017 and $6.3 billion at Dec. 31, 2016 related to a term loan program that offers fully collateralized loans to broker-dealers.

Loans by category

The following table shows loans outstanding at year-end over the last five years.

Loans by category – at year-end *(in millions)*	Dec. 31, **2017**	2016	2015	2014	2013
Domestic:					
Commercial	**$ 2,744**	$ 2,286	$ 2,115	$ 1,390	$ 1,534
Commercial real estate	**4,900**	4,639	3,899	2,524	2,001
Financial institutions	**5,568**	6,342	6,640	5,603	4,511
Lease financings	**772**	989	1,007	1,282	1,322
Wealth management loans and mortgages	**16,420**	15,555	13,247	11,095	9,743
Other residential mortgages	**708**	854	1,055	1,222	1,385
Overdrafts	**963**	1,055	911	1,348	1,314
Other	**1,131**	1,202	1,137	1,113	768
Margin loans	**15,689**	17,503	19,340	20,034	15,652
Total domestic	**48,895**	50,425	49,351	45,611	38,230
Foreign:					
Commercial	**167**	331	227	252	113
Commercial real estate	**—**	15	46	6	9
Financial institutions	**7,483**	8,347	9,259	7,716	9,848
Lease financings	**527**	736	850	889	945
Wealth management loans and mortgages	**108**	99	100	89	75
Other (primarily overdrafts)	**4,264**	4,418	3,637	4,569	2,437
Margin loans	**96**	87	233		
Total foreign	**12,645**	14,033	14,352	13,521	13,427
Total loans *(a)*	**$ 61,540**	$ 64,458	$ 63,703	$ 59,132	$ 51,657

(a) Net of unearned income of $394 million at Dec. 31, 2017, $527 million at Dec. 31, 2016, $674 million at Dec. 31, 2015, $866 million at Dec. 31, 2014 and $1,020 million at Dec. 31, 2013, primarily on domestic and foreign lease financings.

Foreign loans

We have credit relationships in foreign markets, particularly in areas associated with our securities servicing and trade finance activities. Excluding lease financings, these activities resulted in outstanding foreign loans of $12.1 billion at Dec. 31, 2017 and $13.3 billion at Dec. 31, 2016 . The decrease primarily resulted from lower loans to financial institutions, commercial and other loans.

Maturity of loan portfolio

The following table shows the maturity structure of our loan portfolio at Dec. 31, 2017 .

Maturity of loan portfolio at Dec. 31, 2017 *(a)*

(in millions)	Within 1 year	Between 1 and 5 years	After 5 years	Total
Domestic:				
Commercial	$ 699	$ 1,930	$ 115	$ 2,744
Commercial real estate	926	2,382	1,592	4,900
Financial institutions	4,866	411	291	5,568
Overdrafts	963	—	—	963
Other	1,131	—	—	1,131
Margin loans	15,689	—	—	15,689
Subtotal	24,274	4,723	1,998	30,995
Foreign	11,483	479	48	12,010
Total	$ 35,757	$ 5,202 *(b)*	$ 2,046 *(b)*	$ 43,005

(a) Excludes loans collateralized by residential properties, lease financings and wealth management loans and mortgages.
(b) Variable rate loans due after one year totaled $7.2 billion and fixed rate loans totaled $62 million.

Asset quality and allowance for credit losses

Our credit strategy is to focus on investment grade clients who are active users of our non-credit services. Our primary exposure to the credit risk of a customer consists of funded loans, unfunded contractual commitments to lend, standby letters of credit (“SBLC”) and overdrafts associated with our custody and securities clearance businesses.

Our credit strategy complements our other services. We believe credit solidifies customer relationships and, through a disciplined allocation of capital, we can earn acceptable rates of return as part of an overall relationship.

The following table details changes in our allowance for credit losses.

Allowance for credit losses activity *(dollar amounts in millions)*	**2017**	2016	2015	2014	2013
Margin loans	**$ 15,785**	$ 17,590	$ 19,573	$ 20,034	$ 15,652
Non-margin loans	**45,755**	46,868	43,708	39,077	36,005
Total loans	**$ 61,540**	$ 64,458	$ 63,281	$ 59,111	$ 51,657
Average loans outstanding	**57,939**	61,681	60,672	54,210	48,316
Balance, Jan. 1					
Domestic	**$ 245**	$ 240	$ 236	$ 288	$ 339
Foreign	**36**	35	44	56	48
Total allowance at Jan. 1	**281**	275	280	344	387
Charge-offs:					
Commercial	**—**	—	—	(12)	(4)
Commercial real estate	**—**	—	—	(2)	(1)
Financial institutions	**—**	—	(170)		
Wealth management loans and mortgages	**—**	—	—	(1)	(1)
Other residential mortgages	**(1)**	(2)	(2)	(2)	(8)
Foreign	**—**	—	—	(3)	(3)
Total charge-offs	**(1)**	(2)	(172)	(20)	(17)
Recoveries:					
Commercial	**—**	—	—	1	1
Financial institutions	**—**	13	1	1	4
Other residential mortgages	**5**	5	6	2	4
Foreign	**—**	1	—	—	—
Total recoveries	**5**	19	7	4	9
Net recoveries (charge-offs)	**4**	17	(165)	(16)	(8)
Provision for credit losses	**(24)**	(11)	160	(48)	(35)
Balance, Dec. 31,					
Domestic	**226**	245	240	236	288
Foreign	**35**	36	35	44	56
Total allowance, Dec. 31,	**$ 261**	$ 281	$ 275	$ 280	$ 344
Allowance for loan losses	**$ 159**	$ 169	$ 157	$ 191	$ 210
Allowance for lending-related commitments	**102**	112	118	89	134
Net (recoveries) charge-offs to average loans outstanding	**(0.01)%**	(0.03)%	0.27%	0.03%	0.02%
Net (recoveries) charge-offs to total allowance for credit losses	**(1.53)**	(6.05)	60.00	5.71	2.33
Allowance for loan losses as a percentage of total loans	**0.26**	0.26	0.25	0.32	0.41
Allowance for loan losses as a percentage of non-margin loans	**0.35**	0.36	0.36	0.49	0.58
Total allowance for credit losses as a percentage of total loans	**0.42**	0.44	0.43	0.47	0.67
Total allowance for credit losses as a percentage of non-margin loans	**0.57**	0.60	0.63	0.72	0.96

Net recoveries of $4 million in 2017 were primarily reflected in the other residential mortgage portfolio. Net recoveries of $17 million in 2016 primarily reflect the receipt of trust assets from the bankruptcy proceedings of Sentinel in excess of the carrying value of $171 million. Net charge-offs of $165 million in 2015 were primarily reflected in the financial institutions portfolio and of the unsecured loan to Sentinel that was reestablished in December 2015.

The provision for credit losses was a credit of $24 million in 2017 , a credit of $11 million in 2016 and a provision of $160 million in 2015 . The provision in 2015 was primarily driven by an included a portion impairment charge related to a court decision regarding Sentinel.

We had $15.8 billion of secured margin loans on our balance sheet at Dec. 31, 2017 compared with $17.6 billion at Dec. 31, 2016 and $19.6 billion at Dec. 31, 2015 . We have rarely suffered a loss on these types of loans and do not allocate any of our allowance for credit losses to them. As a result, we believe that the ratio of total allowance for credit losses as a percentage of non-margin loans is a more appropriate metric to measure the adequacy of the reserve.

The allowance for loan losses and allowance for lending-related commitments represent management's estimate of losses inherent in our credit portfolio. This evaluation process is subject to numerous estimates and judgments. To the extent actual results differ from forecasts or management's judgment, the allowance for credit losses may be greater or less than future charge-offs.

Based on an evaluation of the allowance for credit losses as discussed in "Critical accounting estimates" and Note 1 of the Notes to Consolidated Financial Statements, we have allocated our allowance for credit losses as follows.

Allocation of allowance	Dec. 31,				
	2017	2016	2015	2014	2013
Commercial	**30%**	29%	30%	21%	24%
Commercial real estate	**29**	26	22	18	12
Foreign	**13**	13	13	16	16
Financial institutions	**9**	9	11	11	14
Other residential mortgages	**8**	10	12	14	16
Wealth management *(a)*	**8**	8	7	8	7
Lease financing	**3**	5	5	12	11
Total	**100%**	100%	100%	100%	100%

(a) Includes the allowance for wealth management mortgages.

The allocation of the allowance for credit losses is inherently judgmental, and the entire allowance for credit losses is available to absorb credit losses regardless of the nature of the loss.

Nonperforming assets

The following table presents our nonperforming assets.

Nonperforming assets *(dollars in millions)*	**Dec. 31,**				
	2017	2016	2015	2014	2013
Nonperforming loans:					
Other residential mortgages	**$ 78**	$ 91	$ 102	$ 112	$ 117
Wealth management loans and mortgages	**7**	8	11	12	11
Commercial real estate	**1**	—	2	1	4
Lease financings	**—**	4	—	—	—
Financial institutions	**—**	—	171		
Commercial	**—**	—	—	—	15
Foreign	**—**	—	—	—	6
Total nonperforming loans	**86**	103	286	125	153
Other assets owned	**4**	4	6	3	3
Total nonperforming assets *(a)*	**$ 90**	$ 107	$ 292	$ 128	$ 156
Nonperforming assets ratio	**0.15%**	0.17%	0.46%	0.22%	0.30%
Nonperforming assets ratio, excluding margin loans	**0.20**	0.23	0.67	0.33	0.43
Allowance for loan losses/nonperforming loans	**184.9**	164.1	54.9	152.8	137.3
Allowance for loan losses/nonperforming assets	**176.7**	157.9	53.8	149.2	134.6
Total allowance for credit losses/nonperforming loans	**303.5**	272.8	96.2	224.0	224.8
Total allowance for credit losses/nonperforming assets	**290.0**	262.6	94.2	218.8	220.5

(a) Loans of consolidated investment management funds are not part of BNY Mellon's loan portfolio. Included in the loans of consolidated investment management funds are nonperforming loans of $53 million at Dec. 31, 2014 and $16 million at Dec. 31, 2013. These loans are recorded at fair value and therefore do not impact the provision for credit losses and allowance for loan losses, and accordingly are excluded from the nonperforming assets table above. In the second quarter of 2015, BNY Mellon adopted the accounting guidance included in Accounting Standards Update ("ASU") 2015-02, Consolidations. As a result, we deconsolidated substantially all of the loans of consolidated investment management funds retrospectively to Jan. 1, 2015.

Nonperforming assets activity *(in millions)*	**Dec. 31, 2017**	Dec. 31, 2016
Balance at beginning of year	**$ 107**	$ 292
Additions	**12**	20
Return to accrual status	**(5)**	(2)
Charge-offs	**(1)**	(1)
Paydowns/sales	**(23)**	(202)
Balance at end of year	**$ 90**	$ 107

Nonperforming assets decreased $17 million compared with Dec. 31, 2016 , primarily reflecting lower other residential mortgages and lease financings.

The nonperforming asset ratios at Dec. 31, 2015 reflect the addition of an unsecured loan in the financial institutions portfolio related to Sentinel, which was recovered in 2016.

The following table presents loans that are past due 90 days or more and still accruing interest.

Past due loans ≥ 90 days still accruing interest at year-end *(in millions)*	**2017**	2016	2015	2014	2013
Domestic:					
Consumer	**$ 5**	$ 7	$ 5	$ 6	$ 7
Commercial	**—**	—	—	—	—
Total domestic	**5**	7	5	6	7
Foreign	**—**	—	—	—	—
Total past due loans	**$ 5**	$ 7	$ 5	$ 6	$ 7

Loans past due 90 days or more at Dec. 31, 2017 primarily consisted of other residential mortgage loans. See Note 5 of the Notes to Consolidated Financial Statements for additional information on our past due loans. See “Nonperforming assets” in Note 1 of the Notes to Consolidated Financial Statements for our policy for placing loans on nonaccrual status.

Deposits

We receive client deposits through a variety of Investment Management and Investment Services businesses and we rely on those deposits as a low-cost and stable source of funding.

Total deposits were $244.3 billion , an increase of 10% compared with $221.5 billion at Dec. 31, 2016 . The increase in deposits primarily reflects higher interest-bearing deposits in non-U.S. offices.

Noninterest-bearing deposits were $82.7 billion at Dec. 31, 2017 compared with $78.3 billion at Dec. 31, 2016 . Interest-bearing deposits were $161.6 billion at Dec. 31, 2017 compared with $143.2 billion at Dec. 31, 2016 .

The aggregate amount of deposits by foreign customers in domestic offices was $39.9 billion and $36.3 billion at Dec. 31, 2017 and Dec. 31, 2016 , respectively.

Deposits in foreign offices totaled $114.8 billion at Dec. 31, 2017 and $99.0 billion at Dec. 31, 2016 . The majority of these deposits were in amounts in excess of $100,000 and were primarily overnight foreign deposits.

The following table shows the maturity breakdown of domestic time deposits of $100,000 or more at Dec. 31, 2017 .

Domestic time deposits ≥ *(in millions)*	**$100,000 at Dec. 31, 2017** Certificates of deposit	Other time deposits	Total
3 months or less	**$ 26**	**$ 34,228**	**$ 34,254**
Between 3 and 6 months	**8**	**—**	**8**
Between 6 and 12 months	**11**	**—**	**11**
Over 12 months	**—**	**—**	**—**
Total	**$ 45**	**$ 34,228**	**$ 34,273**

Short-term borrowings

We fund ourselves primarily through deposits and, to a lesser extent, other short-term borrowings and long-term debt. Short-term borrowings consist of federal funds purchased and securities sold under repurchase agreements, payables to customers and broker-dealers, commercial paper and other borrowed funds. Certain other borrowings, for example, securities sold under repurchase agreements, require the delivery of securities as collateral.

See “Liquidity and dividends” for a discussion of long-term debt and liquidity metrics that we monitor.

Information related to federal funds purchased and securities sold under repurchase agreements is presented below.

Federal funds purchased and securities sold under repurchase agreements			
(dollars in millions)	**2017**	2016	2015
Maximum month-end balance during the year	**$ 21,850**	$ 25,995	$ 30,160
Average daily balance	**$ 19,653**	$ 14,489	$ 16,452
Weighted-average rate during the year	**1.14%**	0.25%	(0.04)%
Ending balance at Dec. 31	**$ 15,163**	$ 9,989	$ 15,002
Weighted-average rate at Dec. 31	**2.33%**	0.38%	0.10 %

Federal funds purchased and securities sold under repurchase agreements	Quarter ended		
(dollars in millions)	**Dec. 31, 2017**	Sept. 30, 2017	Dec. 31, 2016
Maximum month-end balance during the quarter	**$ 20,098**	$ 21,850	$ 12,418
Average daily balance	**$ 20,211**	$ 21,403	$ 11,567
Weighted-average rate during the quarter	**1.83%**	1.30%	0.30%
Ending balance	**$ 15,163**	$ 10,314	$ 9,989
Weighted-average rate at period end	**2.33%**	1.35%	0.38%

Fluctuations of federal funds purchased and securities sold under repurchase agreements between periods resulted from changes in overnight borrowing opportunities. The increase in the weighted-average rates, compared with Dec. 31, 2016 , primarily reflects increases in the Fed Funds effective rate.

Information related to payables to customers and broker-dealers is presented below.

Payables to customers and broker-dealers			
(dollars in millions)	**2017**	2016	2015
Maximum month-end balance during the year	**$ 21,621**	$ 22,327	$ 23,027
Average daily balance *(a)*	**$ 21,142**	$ 21,149	$ 22,062
Weighted-average rate during the year *(a)*	**0.34%**	0.07%	0.06%
Ending balance at Dec. 31	**$ 20,184**	$ 20,987	$ 21,900
Weighted-average rate at Dec. 31	**0.56%**	0.09%	0.07%

(a) The weighted-average rate is calculated based on, and is applied to, the average interest-bearing payables to customers and broker-dealers, which were $18,984 million in 2017 , $16,925 million in 2016 and $11,649 million in 2015 .

Payables to customers and broker -dealers	Quarter ended		
(dollars in millions)	**Dec. 31, 2017**	Sept. 30, 2017	Dec. 31, 2016
Maximum month-end balance during the quarter	**$ 21,380**	$ 21,563	$ 21,082
Average daily balance *(a)*	**$ 21,130**	$ 21,280	$ 20,978
Weighted-average rate during the quarter *(a)*	**0.49%**	0.42%	0.07%
Ending balance	**$ 20,184**	$ 21,176	$ 20,987
Weighted-average rate at period end	**0.56%**	0.43%	0.09%

(a) The weighted-average rate is calculated based on, and is applied to, the average interest-bearing payables to customers and broker-dealers, which were $17,868 million in the fourth quarter of 2017 , $18,516 million in the third quarter of 2017 and $17,091 million in the fourth quarter of 2016 .

Payables to customers and broker-dealers represent funds awaiting re-investment and short sale proceeds payable on demand. Payables to customers and broker-dealers are driven by customer trading activity levels and market volatility.

Information related to commercial paper is presented below.

Commercial paper			
(dollars in millions)	**2017**	2016	2015
Maximum month-end balance during the year	**$ 4,714**	$ 4,950	$ 4,849
Average daily balance	**$ 2,630**	$ 1,337	$ 1,549
Weighted-average rate during the year	**1.08%**	0.37%	0.10%
Ending balance at Dec. 31	**$ 3,075**	$ —	$
Weighted-average rate at Dec. 31	**1.27%**	—%	—%

Commercial paper	Quarter ended		
(dollars in millions)	**Dec. 31, 2017**	Sept. 30, 2017	Dec. 31, 2016
Maximum month-end balance during the quarter	**$ 4,714**	$ 4,277	$ 1,239
Average daily balance	**$ 3,391**	$ 2,736	$ 383
Weighted-average rate during the quarter	**1.23%**	1.15%	0.34%
Ending balance	**$ 3,075**	$ 2,501	$
Weighted-average rate at period end	**1.27%**	1.18%	—%

The Bank of New York Mellon, our largest bank subsidiary, issues commercial paper that matures within 397 days from date of issue and is not redeemable prior to maturity or subject to voluntary prepayment. The increase in commercial paper balances, compared with prior periods, primarily reflects management of overall liquidity. The increase in weighted-average rates, compared with prior periods, primarily reflects increases in the Fed Funds effective rate and the issuance of higher-yielding term commercial paper.

Information related to other borrowed funds is presented below.

Other borrowed funds *(dollars in millions)*	**2017**	2016	2015
Maximum month-end balance during the year	**$ 3,955**	$ 1,280	$ 1,151
Average daily balance	**$ 1,916**	$ 846	$ 814
Weighted-average rate during the year	**1.36%**	0.91%	1.12%
Ending balance at Dec. 31	**$ 3,028**	$ 754	$ 523
Weighted-average rate at Dec. 31	**1.48%**	0.89%	0.97%

Other borrowed funds	Quarter ended		
(dollars in millions)	**Dec. 31, 2017**	Sept. 30, 2017	Dec. 31, 2016
Maximum month-end balance during the quarter	**$ 3,955**	$ 3,353	$ 1,280
Average daily balance	**$ 3,421**	$ 2,197	$ 903
Weighted-average rate during the quarter	**1.46%**	1.38%	0.95%
Ending balance	**$ 3,028**	$ 3,353	$ 754
Weighted-average rate at period end	**1.48%**	1.56%	0.89%

Other borrowed funds primarily include borrowings from the Federal Home Loan Bank (“FHLB”), overdrafts of sub-custodian account balances in our Investment Services businesses, capital lease obligations and borrowings under lines of credit by our Pershing subsidiaries. Overdrafts typically relate to timing differences for settlements. The increase in other borrowed funds balances compared with prior periods primarily reflects borrowings from the FHLB and an increase in capital lease obligations as a result of converting an operating lease to a capital lease.

Liquidity and dividends

BNY Mellon defines liquidity as the ability of the Parent and its subsidiaries to access funding or convert assets to cash quickly and efficiently, or to rollover or issue new debt, especially during periods of market stress, at a reasonable cost and in order to meet its short-term (up to one year) obligations. Funding liquidity risk is the risk that BNY Mellon cannot meet its cash and collateral obligations at a reasonable cost for both expected and unexpected cash flow and collateral needs without adversely affecting daily operations or our financial condition. Funding liquidity risk can arise from funding mismatches, market constraints from the inability to convert assets to cash, the inability to hold or raise cash, low overnight deposits, deposit run-off or contingent liquidity events.

We also manage liquidity risks on an intra-day basis. Intraday liquidity risk is the risk that BNY Mellon cannot access funds during the business day to make payments or settle immediate obligations, usually in real time. Intraday liquidity risk can arise from timing mismatches, market constraints from an inability to convert assets to cash, an inability to raise cash intraday, low overnight deposits and/or adverse stress events.

Changes in economic conditions or exposure to credit, market, operational, legal and reputational risks also can affect BNY Mellon’s liquidity risk profile and are considered in our liquidity risk framework.

For additional information on our liquidity policy, see “Risk Management - Liquidity risk.”

Our overall approach to liquidity management is to have sources of liquidity that are sufficient in amount and diversity such that changes in funding requirements at the Parent and at our bank and broker-dealer subsidiaries can be accommodated routinely without material adverse impact on earnings, capital, daily operations or our financial condition.

BNY Mellon seeks to maintain an adequate liquidity cushion in both normal and stressed environments and seeks to diversify funding sources by line of business, customer and market segment. In addition, we monitor and control liquidity exposures and funding needs within and across significant legal entities, branches, currencies and business lines, taking into account, among other factors, any applicable restrictions on the transfer of liquidity among entities.

Additionally, we seek to maintain liquidity ratios within approved limits and liquidity risk tolerance, maintain a liquid asset buffer that can be liquidated, financed and/or pledged as necessary, and control the levels and sources of wholesale funds. Moreover, BNY Mellon also manages potential intraday liquidity risks. We monitor and manage intraday liquidity against existing and expected intraday liquid resources (such as cash balances, remaining intraday credit capacity, intraday contingency funding and available collateral) to enable BNY Mellon to meet its intraday obligations under normal and reasonably severe stressed conditions.

When monitoring liquidity, we evaluate multiple metrics in order to have sufficient liquidity for expected and unexpected events. Metrics include cash flow mismatches, asset maturities, debt spreads, peer ratios, liquid assets, unencumbered collateral, funding sources and balance sheet liquidity ratios. We monitor the LCR, as well as various internal liquidity limits, as part of our standard analysis to monitor depositor and market funding concentration, liability maturity profile and potential liquidity draws due to off-balance sheet exposures.

The Parent's policy is to have access to sufficient unencumbered cash and cash equivalents at each quarter-end to cover forecasted debt redemptions, net interest payments and net tax payments for the following 18-month period, and to provide sufficient collateral to satisfy transactions subject to Section 23A of the Federal Reserve Act. As of Dec. 31, 2017 , the Parent was in compliance with this policy.

We define available funds for internal liquidity management purposes as liquid funds (which include interest-bearing deposits with banks and federal funds sold and securities purchased under resale agreements), cash and due from banks, and interest-bearing deposits with the Federal Reserve and other central banks. The following table presents our total available funds, including liquid funds, at period end and on an average basis.

Available and liquid funds *(in millions)*	**Dec. 31, 2017**	Dec. 31, 2016	Average **2017**	Average 2016	Average 2015
Available funds:					
Liquid funds:					
Interest-bearing deposits with banks	**$ 11,979**	$ 15,086	**$ 14,879**	$ 14,704	$ 20,531
Federal funds sold and securities purchased under resale agreements	**28,135**	25,801	**27,192**	25,767	23,384
Total liquid funds	**40,114**	40,887	**42,071**	40,471	43,915
Cash and due from banks	**5,382**	4,822	**5,039**	4,308	6,180
Interest-bearing deposits with the Federal Reserve and other central banks	**91,510**	58,041	**70,213**	80,593	83,029
Total available funds	**$ 137,006**	$ 103,750	**$ 117,323**	$ 125,372	$ 133,124
Total available funds as a percentage of total assets	**37%**	31%	**34%**	35%	36%

We had $40.1 billion of liquid funds at Dec. 31, 2017 and $40.9 billion at Dec. 31, 2016 . Of the $40.1 billion in liquid funds held at Dec. 31, 2017 , $12.0 billion was placed in interest-bearing deposits with large, highly rated global financial institutions with a weighted-average life to maturity of approximately 15 days. Of the $12.0 billion , $2.0 billion was placed with banks in the Eurozone.

Total available funds were $137.0 billion at Dec. 31, 2017 , compared with $103.8 billion at Dec. 31, 2016 . The increase was primarily due to an increase in interest-bearing deposits with the Federal Reserve and other central banks.

Average non-core sources of funds, such as money market rate accounts, federal funds purchased and securities sold under repurchase agreements, trading liabilities, commercial paper and other borrowings, were $33.0 billion for 2017 and $25.2 billion for 2016. The increase primarily reflects increases in federal funds purchased and securities sold under repurchase agreements.

Average foreign deposits, primarily from our European-based Investment Services business, were $96.2 billion for 2017, compared with $102.4 billion for 2016. Domestic savings, interest-bearing demand and time deposits averaged $39.4 billion for 2017 and $46.8 billion for 2016. The decrease primarily reflects a decrease in time deposits, partially offset by an increase in demand deposits.

Average payables to customers and broker-dealers were $19.0 billion for 2017 and $16.9 billion for 2016. Payables to customers and broker-dealers are driven by customer trading activity and market volatility.

Long-term debt averaged $27.4 billion for 2017 and $23.3 billion for 2016, reflecting issuances of long-term debt.

Average noninterest-bearing deposits decreased to $71.7 billion for 2017 from $82.7 billion for 2016, reflecting a decrease in client deposits.

A significant reduction in our Investment Services business would reduce our access to deposits. See “Asset/liability management” for additional factors that could impact our deposit balances.

Sources of liquidity

In connection with our single point of entry resolution strategy, we have established an IHC to facilitate the provision of capital and liquidity resources to certain key subsidiaries in the event of material financial distress or failure. In 2017, we entered into a binding support agreement with those key subsidiaries and other related entities that requires the IHC to provide that support. The support agreement required the Parent to transfer its intercompany loans and most of its cash to the IHC, and requires the Parent to continue to transfer cash and other liquid financial assets to the IHC, subject to certain amounts retained by the Parent to meet its near-term cash needs. The Parent’s and the IHC’s obligations under the support agreement are secured. In connection with the initial transfer, the IHC issued unsecured subordinated funding notes to the Parent. The IHC has also provided the Parent with a committed line of credit that allows the Parent to draw funds necessary to service near-term obligations. As a result, during business-as-usual circumstances, the Parent is expected to continue to have access to the funds necessary to pay dividends, repurchase common stock, service its debt and satisfy its other obligations. The IHC is not permitted to pay dividends to the Parent if certain key capital, liquidity and operational risk indicators are breached. Additionally, if our projected liquidity resources deteriorate so severely that resolution of the Parent becomes imminent, the committed line of credit the IHC provided to the Parent will automatically terminate, with all amounts outstanding becoming due and payable, the funding notes issued by the IHC would automatically be forgiven by the Parent and the support agreement would require the Parent to transfer most of its remaining assets (other than stock in subsidiaries and a cash reserve to fund bankruptcy expenses) to the IHC. As a result, during a period of severe financial stress, the Parent might commence bankruptcy proceedings at an earlier time than it otherwise would if the support agreement had not been implemented.

Our bank subsidiaries are subject to dividend limitations under the Federal Reserve Act, as well as national and state banking laws. Under these statutes, prior regulatory consent is required for dividends in any year that would exceed the bank’s net profits for such year combined with retained net profits for the prior two years. Additionally, such bank subsidiaries may not declare dividends in excess of net profits on hand, as defined, after deducting the amount by which the principal amount of all loans, on which interest is past due for a period of six months or more, exceeds the allowance for credit losses.

The Parent’s three major sources of liquidity are access to the debt and equity markets, dividends from its subsidiaries, and cash on hand and cash otherwise made available in business-as-usual circumstances to the Parent through a committed credit facility with our IHC.

The Parent had cash of $451 million at Dec. 31, 2017 , compared with $8.7 billion at Dec. 31, 2016 , a decrease of $8.3 billion , primarily reflecting the transfer of cash to the IHC pursuant to the support agreement.

Our ability to access the capital markets on favorable terms, or at all, is partially dependent on our credit ratings, which are as follows:

Credit ratings at Dec. 31, 2017

	Moody's	S&P	Fitch	DBRS
Parent:				
Long-term senior debt	A1	A	AA-	AA (low)
Subordinated debt	A2	A-	A+	A (high)
Preferred stock	Baa1	BBB	BBB	A (low)
Outlook - Parent:	Stable	Stable	Stable	Stable
The Bank of New York Mellon:				
Long-term senior debt	Aa2	AA-	AA	AA
Subordinated debt	Aa3	A	A+	NR
Long-term deposits	Aa1	AA-	AA+	AA
Short-term deposits	P1	A-1+	F1+	R-1 (high)
Commercial paper	P1	A-1+	F1+	R-1 (high)
BNY Mellon, N.A.:				
Long-term senior debt	Aa2	AA-	AA *(a)*	AA
Long-term deposits	Aa1	AA-	AA+	AA
Short-term deposits	P1	A-1+	F1+	R-1 (high)
Outlook - Banks:	Stable	Stable	Stable	Stable

(a) Represents senior debt issuer default rating.
NR - Not rated.

Long-term debt totaled $28.0 billion at Dec. 31, 2017 and $24.5 billion at Dec. 31, 2016 . The increase reflects issuances of $4.75 billion , partially offset by the maturity of $750 million and the redemption of trust preferred securities . The Parent has $3.65 billion of long-term debt that will mature in 2018 .

The following table presents the long-term debt issued by the Parent in 2017 .

Debt issuances

(in millions)		2017
Senior notes:		
2.60% senior notes due 2022	$	**1,250**
2.661% senior notes due 2023		**1,000**
3.25% senior notes due 2027		**750**
3.442% senior notes due 2028		**1,000**
Senior subordinated notes:		
3.30% senior subordinated notes due 2029		**750**
Total debt issuances	$	**4,750**

On March 20, 2017, all outstanding trust preferred securities issued by Mellon Capital III were redeemed. The redemption price for the trust preferred securities was equal to the par value plus interest accrued up to and excluding the redemption date.

In January 2018, we issued $1.0 billion of fixed rate senior notes maturing in 2023 at an annual interest rate of 2.95% and $750 million of fixed rate senior notes maturing in 2028 at an annual interest rate of 3.40%.

The Bank of New York Mellon, our largest bank subsidiary, issues commercial paper that matures within 397 days from date of issue and is not redeemable prior to maturity or subject to voluntary prepayment. The average commercial paper borrowings were $2.6 billion for 2017 and $1.3 billion for 2016 . Commercial paper outstanding was $3.1 billion at Dec. 31, 2017 . There was no commercial paper outstanding at Dec. 31, 2016 .

Subsequent to Dec. 31, 2017 , our U.S. bank subsidiaries could declare dividends to the Parent of approximately $6.2 billion , without the need for a regulatory waiver. In addition, at Dec. 31, 2017 , non-bank subsidiaries of the Parent had liquid assets of approximately $1.4 billion . Restrictions on our ability to obtain funds from our subsidiaries are discussed in more detail in "Supervision and Regulation - Capital Planning and Stress Testing - Payment of Dividends, Stock Repurchases and Other Capital Distributions" and in Note 17 of the Notes to Consolidated Financial Statements.

Pershing has uncommitted lines of credit in place for liquidity purposes which are guaranteed by the Parent. Pershing has eight separate uncommitted lines of credit amounting to $1.5 billion in aggregate. There were no borrowings under these lines in 2017 . Pershing Limited, an indirect UK-based subsidiary of BNY Mellon, has two separate uncommitted lines of credit amounting to $250 million in aggregate. Average borrowings under these lines were $5 million, in aggregate, in 2017 .

The double leverage ratio is the ratio of our equity investment in subsidiaries divided by our consolidated parent company equity, which includes our noncumulative perpetual preferred stock. In short, the double leverage ratio measures the extent to which equity in subsidiaries is financed by Parent company debt. As the double leverage ratio increases, this can reflect greater demands on a company's cash flows in order to service interest payments and debt maturities. BNY Mellon's double leverage ratio is managed in a range considering the high level of unencumbered available liquid assets held in its principal subsidiaries (such as central bank deposits and government securities), the Company's cash generating fee-based business model, with fee revenue representing 78% of total revenue, and the dividend capacity of our banking subsidiaries. Our double leverage ratio was 122.5% at Dec. 31, 2017 and 119.1% at Dec. 31, 2016 , and within the range targeted by management.

Uses of funds

The Parent's major uses of funds are payment of dividends, repurchases of common stock, principal and interest payments on its borrowings, acquisitions and additional investments in its subsidiaries.

In 2017, we paid dividends of $1.1 billion on our common and preferred stock. Included in our 2017 capital plan was a 26% increase in the quarterly cash dividend on common stock to $0.24 per share in the third quarter of 2017. Our common stock dividend payout ratio was 23% for 2017 . The Federal Reserve's instructions for the 2018 CCAR provide that, for large bank holding companies ("BHCs") like us, dividend payout ratios exceeding 30% of after-tax net income will receive particularly close scrutiny.

In 2017 , we repurchased 54.5 million common shares at an average price of $49.28 per common share for a total cost of $2.7 billion .

Liquidity coverage ratio

U.S. regulators have established an LCR that requires certain banking organizations, including BNY Mellon, to maintain a minimum amount of unencumbered high-quality liquid assets ("HQLA") sufficient to withstand the net cash outflow under a hypothetical standardized acute liquidity stress scenario for a 30-day time horizon.

The following table presents the consolidated HQLA at Dec. 31, 2017 , and the average HQLA and average LCR for the fourth quarter of 2017.

Consolidated HQLA and LCR

(dollars in billions)		**Dec. 31, 2017**
Securities *(a)*	$	107
Cash *(b)*		**86**
Total consolidated HQLA *(c)*	**$**	**193**
Total consolidated HQLA - average *(c)*	**$**	**170**
Average LCR		**118%**

(a) Primarily includes U.S. Treasury, U.S. agency, sovereign securities, securities of U.S. government-sponsored enterprises and investment-grade corporate debt.
(b) Primarily includes cash on deposit with central banks.
(c) Consolidated HQLA presented before adjustments. After haircuts and the impact of trapped liquidity, consolidated HQLA totaled $154 billion at Dec. 31, 2017 and averaged $130 billion for the fourth quarter of 2017 .

The U.S. LCR rule became fully phased-in on Jan. 1, 2017 and requires BNY Mellon and each of our affected domestic bank subsidiaries to meet an LCR of at least 100%. BNY Mellon and each of our domestic bank subsidiaries were compliant with the U.S. LCR requirements throughout 2017.

We also perform liquidity stress tests to evaluate whether the Company maintains sufficient liquidity resources under multiple stress scenarios, including stress tests required by rules adopted by the Federal Reserve under the Dodd-Frank Act. Stress tests are based on scenarios that measure liquidity risks under unlikely but plausible conditions. We perform these tests under various time horizons ranging from one day to one year in a base case, as well as supplemental tests to determine whether the Company's liquidity is sufficient for severe market events and firm-specific events. Under our scenario testing program, the results of the tests indicate that the Company has sufficient liquidity.

As part of our resolution planning, we monitor, among other measures, our Resolution Liquidity

Adequacy and Positioning (“RLAP”). The RLAP methodologies are designed to ensure that the liquidity needs of certain key subsidiaries in a stress environment can be met by available resources held at the entity or at the Parent or IHC, as applicable.

Statement of cash flows

The following summarizes the activity reflected on the statement of cash flows. While this information may be helpful to highlight certain macro trends and business strategies, the cash flow analysis may not be as relevant when analyzing changes in our net earnings and net assets. We believe that in addition to the traditional cash flow analysis, the discussion related to liquidity and dividends and asset/liability management herein may provide more useful context in evaluating our liquidity position and related activity.

Net cash provided by operating activities was $4.6 billion in 2017 , compared with $6.2 billion in 2016 and $4.1 billion in 2015 . In 2017 , 2016 and 2015 , cash flows provided by operations were principally the result of earnings. In 2017 , cash provided by operations was partially offset by changes in trading assets and liabilities. In 2016 , cash flows provided by operations also reflect changes in trading assets and liabilities, partially offset by changes in accruals and other balances.

Net cash used for investing activities was $31.1 billion in 2017 , compared with net cash provided by investing activities of $51.2 billion in 2016 and net cash used for investing activities of $19.8 billion in 2015 . In 2017 , 2016 and 2015 , net cash used for, or provided by, investing activities primarily reflects changes in interest-bearing deposits with the Federal Reserve and other central banks.

Net cash provided by financing activities was $26.8 billion in 2017 , compared with net cash used for financing activities of $59.1 billion in 2016 and net cash provided by financing activity of $15.2 billion in 2015 . In 2017 , 2016 and 2015 , net cash provided by, or used for, financing activities primarily reflects changes in deposits and changes in federal funds purchased and securities sold under repurchase agreements. In 2017 , net cash provided by financing activities also reflects net proceeds from the issuance of long-term debt, changes in commercial paper and other borrowed funds, partially offset by common stock repurchases. In 2016 , net cash used for financing activities also reflects repayment of long-term debt and common stock repurchases, partially offset by the net proceeds from the issuance of long-term debt. In 2015 , net cash provided by financing activities also reflects the net change in long-term debt and common stock repurchases.

Commitments and obligations

We have contractual obligations to make fixed and determinable payments to third parties as indicated in the table below. The table excludes certain obligations such as trade payables and trading liabilities, where the obligation is short-term or subject to valuation based on market factors. In addition to the amounts shown in the table below, at Dec. 31, 2017 , $128 million of unrecognized tax benefits have been recorded as liabilities in accordance with ASC 740, *Income Taxes* . Related to these unrecognized tax benefits, we have also recorded a liability for potential interest of $17 million . At this point, it is not possible to determine when these amounts will be settled or resolved.

Contractual obligations at Dec. 31, 2017		Payments due by period			
(in millions)	Total	Less than 1 year	1-3 years	3-5 years	Over 5 years
Deposits without a stated maturity	**$ 122,373**	$ 122,373	$ —	$ —	$
Term deposits	**40,021**	40,019	2		
Federal funds purchased and securities sold under repurchase agreements	**15,163**	15,163			
Payables to customers and broker-dealers	**20,184**	20,184			
Other borrowed funds *(a)*	**3,028**	3,026	2		
Long-term debt *(b)*	**31,403**	4,385	9,388	6,260	11,370
Unfunded pension and post-retirement benefits	**292**	48	63	55	126
Investment commitments *(c)*	**486**	200	226	43	17
Repatriation tax	**723**	27	112	112	472
Total contractual obligations	**$ 233,673**	$ 205,425	$ 9,793	$ 6,470	$ 11,985

(a) Includes capital leases.
(b) Includes interest.
(c) Includes Community Reinvestment Act commitments.

We have entered into fixed and determinable commitments as indicated in the table below:

Other commitments at Dec. 31, 2017		Amount of commitment expiration per period			
(in millions)	Total	Less than 1 year	1-3 years	3-5 years	Over 5 years
Securities lending indemnifications *(a)*	**$ 432,084**	$ 432,084	$ —	$ —	$
Lending commitments	**51,467**	30,068	8,997	12,205	197
Standby letters of credit	**3,531**	2,482	666	383	
Operating leases	**2,018**	292	541	431	754
Purchase obligations *(b)*	**1,395**	740	394	169	92
Commercial letters of credit	**122**	122			
Private equity commitments *(c)*	**42**	6	28	8	
Total commitments	**$ 490,659**	$ 465,794	$ 10,626	$ 13,196	$ 1,043

(a) Excludes the indemnifications for securities booked at BNY Mellon beginning in late 2013 resulting from the CIBC Mellon joint venture, which totaled $69 billion at Dec. 31, 2017.
(b) Purchase obligations are defined as agreements to purchase goods or services that are enforceable and legally binding and specify all significant terms.
(c) Related to SBIC investments, which are compliant with the Volcker Rule.

See “Liquidity and dividends” and Note 20 of the Notes to Consolidated Financial Statements for a further discussion of the source of funds for our commitments and obligations.

Off-balance sheet arrangements

Off-balance sheet arrangements discussed in this section are limited to guarantees, retained or contingent interests and obligations arising out of unconsolidated variable interest entities (“VIEs”). For BNY Mellon, these items include certain guarantees. Guarantees include SBLC issued as part of our corporate banking business and securities lending indemnifications issued as part of our Investment Services business. See Note 20 of the Notes to Consolidated Financial Statements for a further discussion of our off-balance sheet arrangements.

Capital

Capital data *(dollar amounts in millions except per share amounts; common shares in thousands)*	**2017**	2016
At period end:		
BNY Mellon shareholders’ equity to total assets ratio	**11.1%**	11.6%
BNY Mellon common shareholders’ equity to total assets ratio	**10.1%**	10.6%
Total BNY Mellon shareholders’ equity	**$ 41,251**	$ 38,811
Total BNY Mellon common shareholders’ equity	**$ 37,709**	$ 35,269
BNY Mellon tangible common shareholders’ equity – Non-GAAP *(a)*	**$ 18,486**	$ 16,957
Book value per common share *(a)*	**$ 37.21**	$ 33.67
Tangible book value per common share – Non-GAAP *(a)*	**$ 18.24**	$ 16.19
Closing stock price per common share	**$ 53.86**	$ 47.38
Market capitalization	**$ 54,584**	$ 49,630
Common shares outstanding	**1,013,442**	1,047,488
Full-year:		
Average common equity to average assets	**10.5%**	9.9%
Cash dividends per common share	**$ 0.86**	$ 0.72
Common dividend payout ratio	**23%**	23%
Common dividend yield	**1.6%**	1.5%

(a) See “Supplemental information – Explanation of GAAP and Non-GAAP financial measures” beginning on page 118 for a reconciliation of GAAP to Non-GAAP.

The Bank of New York Mellon Corporation total shareholders' equity increased to $41.3 billion at Dec. 31, 2017 from $38.8 billion at Dec. 31, 2016 . The increase primarily reflects earnings, foreign currency translation adjustments and $739 million resulting from stock awards, the exercise of stock options and stock issued for employee benefit plans, partially offset by share repurchases and dividends.

The unrealized gain, net of tax, on our available-for-sale investment securities portfolio included in accumulated other comprehensive income was $184 million at Dec. 31, 2017 , compared with $45 million at Dec. 31, 2016 . The increase in the unrealized gain, net of tax, was primarily driven by a decrease in long-term interest rates.

Our 2017 capital plan, submitted in connection with the Federal Reserve's CCAR, included the authorization to repurchase an average of $650 million of common stock each quarter starting in the third quarter of 2017 and continuing through the second quarter of 2018. We repurchased 25 million common shares at an average price of $52.68 per common share for a total cost of $1.3 billion in 2017 under the current program. We expect to continue to repurchase shares in the first half of 2018 under the 2017 capital plan.

Also included in the 2017 capital plan was a 26% increase in the quarterly cash dividend to $0.24 per common share. The first payment of the increased quarterly cash dividend was made on Aug. 11, 2017.

Capital adequacy

Regulators establish certain levels of capital for BHCs and banks, including BNY Mellon and our bank subsidiaries, in accordance with established quantitative measurements. For the Parent to maintain its status as a financial holding company ("FHC"), our U.S. bank subsidiaries and BNY Mellon must, among other things, qualify as "well capitalized." As of Dec. 31, 2017 and Dec. 31, 2016 , BNY Mellon and our U.S. bank subsidiaries were "well capitalized."

Failure to satisfy regulatory standards, including "well capitalized" status or capital adequacy rules more generally, could result in limitations on our activities and adversely affect our financial condition. See the discussion of these matters in "Supervision and Regulation - Regulated Entities of BNY Mellon and Ancillary Regulatory Requirements" and "Risk Factors - Operational Risk - Failure to satisfy regulatory standards, including "well capitalized" and "well managed" status or capital adequacy and liquidity rules more generally, could result in limitations on our activities and adversely affect our business and financial condition."

The "well capitalized" and other capital categories (where applicable), as established by applicable regulations for BHCs and depository institutions, have been established by those regulations solely for purposes of implementing their respective requirements (for example, eligibility for FHC status in the case of BHCs and prompt corrective action measures in the case of depository institutions). A BHC's or depository institution's qualification for a capital category may not constitute an accurate representation of the entity's overall financial condition or prospects.

The U.S. banking agencies' capital rules are based on the framework adopted by the Basel Committee on Banking Supervision ("BCBS"), as amended from time to time. For additional information on these capital requirements, see "Supervision and Regulation." BNY Mellon is subject to the U.S. capital rules, which are being gradually phased-in over a multi-year period through Jan. 1, 2019.

Our estimated CET1 and SLR ratios on a fully phased-in basis are based on our current interpretation of the U.S. capital rules. Our risk-based capital adequacy is determined using the higher of RWAs determined using the Advanced Approach and Standardized Approach.

The transitional capital ratios for Dec. 31, 2017 included in the following table were negatively impacted by the additional phase-in requirements that became effective on Jan. 1, 2017.

Consolidated and largest bank subsidiary regulatory capital ratios	Dec. 31, 2017			
	Well capitalized	Minimum required *(a)*	Capital ratios	Dec. 31, 2016
Consolidated regulatory capital ratios : *(b)*				
Standardized Approach:				
CET1 ratio	N/A *(c)*	6.5%	**11.9%**	12.3%
Tier 1 capital ratio	6%	8	**14.2**	14.5
Total (Tier 1 plus Tier 2) capital ratio	10	10	**15.1**	15.2
Advanced Approach:				
CET1 ratio	N/A *(c)*	6.5%	**10.7%**	10.6%
Tier 1 capital ratio	6%	8	**12.7**	12.6
Total (Tier 1 plus Tier 2) capital ratio	10	10	**13.4**	13.0
Leverage capital ratio *(b)*	N/A *(c)*	4	**6.6**	6.6
SLR *(d)*	5 *(c)(e)*	3	**6.1**	6.0
Selected regulatory capital ratios – fully phased-in – Non-GAAP : *(c)*				
Estimated CET1 ratio:				
Standardized Approach	8.5% *(e)*	6.5%	**11.5%**	11.3%
Advanced Approach	8.5 *(e)*	6.5	**10.3**	9.7
Estimated SLR	5 *(e)*	3	**5.9**	5.6
The Bank of New York Mellon regulatory capital ratios : *(b)*				
Advanced Approach:				
CET1 ratio	6.5%	5.75%	**14.1%**	13.6%
Tier 1 capital ratio	8	7.25	**14.4**	13.9
Total (Tier 1 plus Tier 2) capital ratio	10	9.25	**14.7**	14.2
Leverage capital ratio	5	4	**7.6**	7.2
SLR *(d)*	6	3	**6.9**	6.5
Selected regulatory capital ratios – fully phased-in – Non-GAAP :				
Estimated SLR	6%	3%	**6.7%**	6.1%

(a) Minimum requirements for Dec. 31, 2017 include Basel III minimum thresholds plus currently applicable buffers.
(b) For our CET1, Tier 1 capital and Total capital ratios, our effective capital ratios under U.S. capital rules are the lower of the ratios as calculated under the Standardized and Advanced Approaches. The leverage capital ratio is based on Tier 1 capital, as phased-in and quarterly average total assets.
(c) The Federal Reserve's regulations do not establish well capitalized thresholds for these measures for BHCs.
(d) SLR became a binding measure on Jan. 1, 2018. The SLR is based on Tier 1 capital, as phased-in, and average quarterly assets and certain off-balance sheet exposures.
(e) Fully phased-in Basel III minimum with expected buffers. See page 57 for the capital ratios with the phase-in of the capital conservation buffer and the U.S. G-SIB surcharge, as well as the introduction of the SLR buffer.

Our CET1 ratio determined under the Advanced Approach was 10.7% at Dec. 31, 2017 and 10.6% at Dec. 31, 2016 . The increase primarily reflects CET1 generation, partially offset by the additional phase-in requirements under the U.S. capital rules that became effective Jan. 1, 2017 and the impact of U.S. tax legislation.

Our estimated CET1 ratio calculated under the Advanced Approach on a fully phased-in basis (Non-GAAP) was 10.3% at Dec. 31, 2017 and 9.7% at Dec. 31, 2016 . The increase primarily reflects CET1 generation, partially offset by the impact of U.S. tax legislation. U.S. tax legislation had a negative impact on regulatory capital, resulting in a $551 million decrease, driven by the repatriation tax, offset by the tax benefit related to the remeasurement of certain deferred tax liabilities. Our estimated CET1 ratio calculated under the Standardized Approach on a fully phased-in basis (Non-GAAP) was 11.5% at Dec. 31, 2017 and 11.3% at Dec. 31, 2016 .

The estimated fully phased-in SLR (Non-GAAP) of 5.9% at Dec. 31, 2017 and 5.6% at Dec. 31, 2016 was based on our interpretation of the U.S. capital rules, as supplemented by the Federal Reserve's final rules on the SLR. BNY Mellon will be subject to an enhanced SLR, which will require a buffer in excess of 2% over the minimum SLR of 3%. The insured depository institution subsidiaries of the U.S. G-SIBs,

including those of BNY Mellon, must maintain a 6% SLR to be considered "well capitalized."

For additional information on the U.S. capital rules, see "Supervision and Regulation - Capital Requirements - Generally."

The Advanced Approach capital ratios are significantly impacted by RWAs for operational risk. Our operational loss risk model is informed by external losses, including fines and penalties levied against institutions in the financial services industry, particularly those that relate to businesses in which we operate, and as a result external losses have impacted and could in the future impact the amount of capital that we are required to hold.

Management views the estimated fully phased-in CET1 and other risk-based capital ratios and SLR as key measures in monitoring BNY Mellon's capital position and progress against future regulatory capital standards. Additionally, the presentation of the estimated fully phased-in CET1 and other risk-based capital ratios and SLR are intended to allow investors to compare these ratios with estimates presented by other companies.

Our capital ratios are necessarily subject to, among other things, anticipated compliance with all necessary enhancements to model calibration, approval by regulators of certain models used as part of RWA calculations, other refinements, further implementation guidance from regulators, market practices and standards and any changes BNY Mellon may make to its businesses. As a consequence of these factors, our capital ratios may materially change, and may be volatile over time and from period to period.

Minimum capital ratios and capital buffers

The U.S. capital rules include a series of buffers and surcharges over required minimums that apply to BHCs, including BNY Mellon, which are being phased-in over time. Banking organizations with a risk-based ratio or SLR above the minimum required level, but with a risk-based ratio or SLR below the minimum level with buffers will face constraints on dividends, equity repurchases and discretionary executive compensation based on the amount of the shortfall. Different regulatory capital minimums, buffers and surcharges apply to our banking subsidiaries.

The U.S. capital rules introduced a capital conservation buffer and countercyclical capital buffer that add to the minimum regulatory capital ratios. The capital conservation buffer–1.25% for 2017 and 2.5% when fully phased-in on Jan. 1, 2019–is designed to absorb losses during periods of economic stress and applies to all banking organizations. During periods of excessive growth, the capital conservation buffer may be expanded through the imposition of a countercyclical capital buffer that may be as high as an additional 2.5%. The countercyclical capital buffer, when applicable, applies only to Advanced Approach banking organizations. The countercyclical capital buffer is currently set to zero with respect to U.S. exposures, but it could increase if the banking agencies determine that systemic vulnerabilities are meaningfully above normal.

BNY Mellon is subject to an additional G-SIB surcharge, which is implemented as an extension of the capital conservation buffer and must be satisfied with CET1 capital. For 2017, the G-SIB surcharge applicable to BNY Mellon is 0.75%, and for 2018 it is 1.125%, when fully phased-in on Jan. 1, 2019, as calculated, applying metrics as currently applicable to BNY Mellon, it would be 1.5%.

The following table presents the principal minimum capital ratio requirements with buffers and surcharges, as phased-in, applicable to the Parent and The Bank of New York Mellon. This table does not include the imposition of a countercyclical capital buffer. The U.S. capital rules also provide for transitional arrangements for qualifying instruments, deductions and adjustments, which are not reflected in this table. Buffers and surcharges are not applicable to the leverage capital ratio. These buffers, other than the SLR buffer, and surcharge began to phase-in on Jan. 1, 2016 and will be fully implemented on Jan. 1, 2019.

Capital ratio requirements	Well capitalized	Minimum ratios	Minimum ratios with buffers, as phased-in *(a)* 2017	2018	2019
Capital conservation buffer (CET1)			1.25%	1.875%	2.5%
U.S. G-SIB surcharge (CET1) *(b)(c)*			0.75%	1.125%	1.5%
Consolidated:					
CET1 ratio	N/A	4.5%	6.5%	7.5%	8.5%
Tier 1 capital ratio	6.0%	6.0%	8.0%	9.0%	10.0%
Total capital ratio	10.0%	8.0%	10.0%	11.0%	12.0%
Enhanced SLR buffer (Tier 1 capital)	N/A		N/A	2.0%	2.0%
SLR	N/A	3.0%	N/A	5.0%	5.0%
Bank subsidiaries: *(c)*					
CET1 ratio	6.5%	4.5%	5.75%	6.375%	7.0%
Tier 1 capital ratio	8.0%	6.0%	7.25%	7.875%	8.5%
Total capital ratio	10.0%	8.0%	9.25%	9.875%	10.5%
SLR	6.0%	3.0%	N/A	6.0% *(d)*	6.0% *(d)*

(a) Countercyclical capital buffer currently set to 0%.
(b) The fully phased-in U.S. G-SIB surcharge of 1.5% applicable to BNY Mellon is subject to change.
(c) The U.S. G-SIB surcharge is not applicable to the regulatory capital ratios of the bank subsidiaries.
(d) Well capitalized threshold.

The table below presents the factors that impacted the transitional and fully phased-in CET1.

Estimated CET1 generation *(in millions)*	**Year ended Dec. 31, 2017** **Transitional Approach** *(a)*	**Fully phased-in – Non-GAAP** *(b)*
CET1 – Beginning of period	**$ 18,093**	**$ 16,490**
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	**3,915**	**3,915**
Goodwill and intangible assets, net of related deferred tax liabilities	**(1,370)**	**(911)**
Gross CET1 generated	**2,545**	**3,004**
Capital deployed:		
Common stock dividends	**(901)**	**(901)**
Common stock repurchased	**(2,686)**	**(2,686)**
Total capital deployed	**(3,587)**	**(3,587)**
Other comprehensive income:		
Foreign currency translation	**838**	**838**
Unrealized loss on assets available-for-sale	**127**	**151**
Defined benefit plans	**59**	**410**
Unrealized gain on cash flow hedges	**9**	**9**
Total other comprehensive income	**1,033**	**1,408**
Additional paid-in capital *(c)*	**703**	**703**
Other additions (deductions):		
Net pension fund assets	**(114)**	**(121)**
Deferred tax assets	**(14)**	**(9)**
Embedded goodwill	**(59)**	**(43)**
Other	**(7)**	**(7)**
Total other deductions	**(194)**	**(180)**
Net CET1 generated	**500**	**1,348**
CET1 – End of period	**$ 18,593**	**$ 17,838**

(a) Reflects transitional adjustments to CET1 required under the U.S. capital rules.
(b) Estimated.

(c) Primarily related to stock awards, the exercise of stock options and stock issued for employee benefit plans.

The following table presents the components of our transitional and fully phased-in CET1, Tier 1 and Tier 2 capital, the RWAs determined under both the Standardized and Advanced Approaches, the average assets used for leverage capital purposes and the total leverage exposure for estimated SLR purposes.

Capital components and ratios	**Dec. 31, 2017**		Dec. 31, 2016	
(dollars in millions)	**Transitional Approach** *(a)*	**Fully phased-in – Non-GAAP** *(b)*	Transitional Approach *(a)*	Fully phased-in – Non-GAAP *(b)*
CET1:				
Common shareholders' equity	**$ 37,859**	**$ 37,709**	$ 35,794	$ 35,269
Goodwill and intangible assets	**(18,684)**	**(19,223)**	(17,314)	(18,312)
Net pension fund assets	**(169)**	**(211)**	(55)	(90)
Equity method investments	**(372)**	**(387)**	(313)	(344)
Deferred tax assets	**(33)**	**(41)**	(19)	(32)
Other	**(8)**	**(9)**		(1)
Total CET1	**18,593**	**17,838**	18,093	16,490
Other Tier 1 capital:				
Preferred stock	**3,542**	**3,542**	3,542	3,542
Deferred tax assets	**(8)**	**—**	(13)	
Net pension fund assets	**(42)**	**—**	(36)	
Other	**(41)**	**(41)**	(121)	(121)
Total Tier 1 capital	**$ 22,044**	**$ 21,339**	$ 21,465	$ 19,911
Tier 2 capital:				
Subordinated debt	**$ 1,250**	**$ 1,250**	$ 550	$ 550
Allowance for credit losses	**261**	**261**	281	281
Trust preferred securities	**—**	**—**	148	—
Other	**(12)**	**(12)**	(12)	(11)
Total Tier 2 capital – Standardized Approach	**1,499**	**1,499**	967	820
Excess of expected credit losses	**31**	**31**	50	50
Less: Allowance for credit losses	**261**	**261**	281	281
Total Tier 2 capital – Advanced Approach	**$ 1,269**	**$ 1,269**	$ 736	$ 589
Total capital:				
Standardized Approach	**$ 23,543**	**$ 22,838**	$ 22,432	$ 20,731
Advanced Approach	**$ 23,313**	**$ 22,608**	$ 22,201	$ 20,500
Risk-weighted assets:				
Standardized Approach	**$ 155,621**	**$ 155,324**	$ 147,671	$ 146,475
Advanced Approach:				
Credit Risk	**$ 101,681**	**$ 101,366**	$ 97,659	$ 96,391
Market Risk	**3,657**	**3,657**	2,836	2,836
Operational Risk	**68,688**	**68,688**	70,000	70,000
Total Advanced Approach	**$ 174,026**	**$ 173,711**	$ 170,495	$ 169,227
Standardized Approach:				
CET1 ratio	**11.9%**	**11.5%**	12.3%	11.3%
Tier 1 capital ratio	**14.2**	**13.7**	14.5	13.6
Total (Tier 1 plus Tier 2) capital ratio	**15.1**	**14.7**	15.2	14.2
Advanced Approach:				
CET1 ratio	**10.7%**	**10.3%**	10.6%	9.7%
Tier 1 capital ratio	**12.7**	**12.3**	12.6	11.8
Total (Tier 1 plus Tier 2) capital ratio	**13.4**	**13.0**	13.0	12.1
Average assets for leverage capital purposes	**$ 331,600**		$ 326,809	
Total leverage exposure for SLR purposes		**$ 360,543**		$ 355,083

(a) Reflects transitional adjustments to CET1, Tier 1 capital and Tier 2 capital required in 2017 and 2016 under the U.S. capital rules.
(b) Estimated.

The following table shows the impact on the consolidated capital ratios at Dec. 31, 2017 of a $100 million increase or decrease in common equity, or a $1 billion increase or decrease in RWAs, quarterly average assets or total leverage exposure.

Sensitivity of consolidated capital ratios at Dec. 31, 2017

	Increase or decrease of	
(in basis points)	**$100 million in common equity**	**$1 billion in RWA, quarterly average assets or total leverage exposure**
CET1:		
Standardized Approach	6 bps	8 bps
Advanced Approach	6	6
Tier 1 capital:		
Standardized Approach	6	9
Advanced Approach	6	7
Total capital:		
Standardized Approach	6	10
Advanced Approach	6	8
Leverage capital	3	2
SLR	3	2
Estimated CET1 ratio, fully phased-in – Non-GAAP:		
Standardized Approach	6	7
Advanced Approach	6	6
Estimated SLR, fully phased-in – Non-GAAP	3	2

Capital ratios vary depending on the size of the balance sheet at year-end and the levels and types of investments in assets. The balance sheet size fluctuates from year to year based on levels of customer and market activity. In general, when servicing clients are more actively trading securities, deposit balances and the balance sheet as a whole are higher. In addition, when markets experience significant volatility or stress, our balance sheet size may increase considerably as client deposit levels increase.

Supplementary Leverage Ratio

BNY Mellon has presented its consolidated and largest bank subsidiary's estimated fully phased-in SLRs based on its interpretation of the U.S. capital rules, which are being gradually phased-in over a multi-year period and on the application of such rules to BNY Mellon's businesses as currently conducted.

The following table presents the components of our SLR on both the transitional and fully phased-in basis for BNY Mellon and our largest bank subsidiary, The Bank of New York Mellon.

SLR	**Dec. 31, 2017**		Dec. 31, 2016	
(dollars in millions)	Transitional basis	Fully phased-in – Non-GAAP *(a)*	Transitional basis	Fully phased-in – Non-GAAP *(a)*
Consolidated:				
Total Tier 1 capital	**$ 22,044**	**$ 21,339**	$ 21,465	$ 19,911
Total leverage exposure:				
Quarterly average total assets	**$ 350,786**	**$ 350,786**	$ 344,142	$ 344,142
Less: Amounts deducted from Tier 1 capital	**19,186**	**19,892**	17,333	18,887
Total on-balance sheet assets, as adjusted	**331,600**	**330,894**	326,809	325,255
Off-balance sheet exposures:				
Potential future exposure for derivative contracts (plus certain other items)	**6,603**	**6,603**	6,021	6,021
Repo-style transaction exposures	**1,086**	**1,086**	533	533
Credit-equivalent amount of other off-balance sheet exposures (less SLR exclusions)	**21,960**	**21,960**	23,274	23,274
Total off-balance sheet exposures	**29,649**	**29,649**	29,828	29,828
Total leverage exposure	**$ 361,249**	**$ 360,543**	$ 356,637	$ 355,083
SLR – Consolidated *(b)*	**6.1%**	**5.9%**	6.0%	5.6%
The Bank of New York Mellon, our largest bank subsidiary:				
Tier 1 capital	**$ 20,478**	**$ 19,768**	$ 19,011	$ 17,708
Total leverage exposure	**$ 296,510**	**$ 296,224**	$ 291,022	$ 290,230
SLR – The Bank of New York Mellon *(b)*	**6.9%**	**6.7%**	6.5%	6.1%

(a) Estimated.
(b) The estimated fully phased-in SLR (Non-GAAP) is based on our interpretation of the U.S. capital rules. The minimum required SLR is 3% and there is a 2% buffer, in addition to the minimum, that is applicable to U.S. G-SIBs. The insured depository institution subsidiaries of the U.S. G-SIBs, including those of BNY Mellon, must maintain a 6% SLR to be considered "well-capitalized."

Issuer purchases of equity securities

Share repurchases - fourth quarter of 2017 *(dollars in millions, except per share information; common shares in thousands)*	Total shares repurchased	Average price per share	Total shares repurchased as part of a publicly announced plan or program	Maximum approximate dollar value of shares that may yet be purchased under the publicly announced plans or programs at Dec. 31, 2017
October 2017	5,306	$ 52.60	5,306	$ 1,671
November 2017	4,758	52.63	4,758	1,421
December 2017	2,316	52.61	2,316	1,299
Fourth quarter of 2017 *(a)*	**12,380**	**$ 52.61**	**12,380**	**$ 1,299** *(b)*

(a) Includes 35 thousand shares repurchased at a purchase price of $2 million from employees, primarily in connection with the employees' payment of taxes upon the vesting of restricted stock. The average price per share of open market purchases was $52.61 .
(b) Represents the maximum value of the shares authorized to be repurchased through the second quarter of 2018, including employee benefit plan repurchases, in connection with the Federal Reserve's non-objection to our 2017 capital plan.

On June 28, 2017, in connection with the Federal Reserve's non-objection to our 2017 capital plan, BNY Mellon announced a share repurchase plan providing for the repurchase of up to $2.6 billion of common stock and up to an additional $500 million of common stock contingent on a prior issuance of $500 million of noncumulative perpetual preferred stock. The 2017 capital plan began in the third quarter of 2017 and continues through the second quarter of 2018. This new share repurchase plan replaces all previously authorized share repurchase plans.

Share repurchases may be executed through repurchase plans designed to comply with Rule 10b5-1 and through derivative, accelerated share

repurchase and other structured transactions. The timing and exact amount of any common stock repurchases will depend on various factors, including market conditions and the common stock trading price; the Company's capital position, liquidity and financial performance; alternative uses of capital; and legal and regulatory considerations.

Trading activities and risk management

Our trading activities are focused on acting as a market-maker for our customers, facilitating customer trades and risk mitigating hedging in compliance with the Volcker Rule. The risk from market-making activities for customers is managed by our traders and limited in total exposure through a system of position limits, value-at-risk ("VaR") methodology and other market sensitivity measures. VaR is the potential loss in value due to adverse market movements over a defined time horizon with a specified confidence level. The calculation of our VaR used by management and presented below assumes a one-day holding period, utilizes a 99% confidence level, and incorporates non-linear product characteristics. VaR facilitates comparisons across portfolios of different risk characteristics. VaR also captures the diversification of aggregated risk at the firm-wide level.

VaR represents a key risk management measure and it is important to note the inherent limitations to VaR, which include:

- VaR does not estimate potential losses over longer time horizons where moves may be extreme;
- VaR does not take account of potential variability of market liquidity; and
- Previous moves in market risk factors may not produce accurate predictions of all future market moves.

See Note 21 of the Notes to Consolidated Financial Statements for additional information on the VaR methodology.

In an effort to improve our enterprise-level risk management capabilities, we have changed our VaR model from Monte Carlo simulation to historical simulation for both management and RWA calculations. This change was effective as of Jan. 1, 2017. In addition to this model enhancement, the impact of credit valuation adjustment ("CVA") is now included.

The following table indicates the calculated VaR amounts for the trading portfolio for the designated periods using the historical simulation VaR model. The impact of changes in methodology implemented on Jan.1, 2017 are not material.

VaR *(a)*	**2017**			
(in millions)	**Average**	**Minimum**	**Maximum**	**Dec. 31, 2017**
Interest rate	**$ 3.6**	**$ 2.4**	**$ 4.9**	**$ 4.4**
Foreign exchange	**4.1**	**2.6**	**8.6**	**8.6**
Equity	**0.5**	**0.1**	**1.1**	**0.8**
Credit	**1.1**	**0.5**	**1.7**	**1.3**
Diversification	**(5.0)**	**N/M**	**N/M**	**(5.2)**
Overall portfolio	**4.3**	**3.2**	**9.9**	**9.9**

(a) Beginning Jan. 1, 2017, the VaR figures reflect the impact of the CVA and hedges as per the guidance included in ASC 820, Fair Value Measurement. VaR exposure does not include the impact of the Company's consolidated investment management funds and seed capital investments.

N/M - Because the minimum and maximum may occur on different days for different risk components, it is not meaningful to compute a minimum and maximum portfolio diversification effect.

The following table indicates the calculated VaR amounts for the trading portfolio for the designated periods as previously reported under the former Monte Carlo simulation VaR model.

VaR *(a)*	2016			Dec. 31,
(in millions)	Average	Minimum	Maximum	2016
Interest rate	$ 6.3	$ 4.3	$ 8.9	$ 5.5
Foreign exchange	2.9	1.2	11.1	2.8
Equity	0.6	0.3	0.8	0.4
Credit	0.3	0.2	0.4	0.3
Diversification	(4.2)	N/M	N/M	(3.7)
Overall portfolio	5.9	4.3	7.7	5.3

(a) VaR figures do not reflect the impact of the CVA guidance in ASC 820, Fair Value Measurement. This is consistent with the regulatory treatment. VaR exposure does not include the impact of the Company's consolidated investment management funds and seed capital investments.

N/M - Because the minimum and maximum may occur on different days for different risk components, it is not meaningful to compute a minimum and maximum portfolio diversification effect.

The interest rate component of VaR represents instruments whose values predominantly vary with the level or volatility of interest rates. These instruments include, but are not limited to: sovereign debt, swaps, swaptions, forward rate agreements, exchange-traded futures and options, and other interest rate derivative products.

The foreign exchange component of VaR represents instruments whose values predominantly vary with the level or volatility of currency exchange rates or interest rates. These instruments include, but are not limited to: currency balances, spot and forward transactions, currency options, exchange-traded futures and options, and other currency derivative products.

The equity component of VaR consists of instruments that represent an ownership interest in the form of domestic and foreign common stock or other equity-linked instruments. These instruments include, but are not limited to: common stock, exchange-traded funds, preferred stock, listed equity options (puts and calls), OTC equity options, equity total return swaps, equity index futures and other equity derivative products.

The credit component of VaR represents instruments whose values predominantly vary with the credit worthiness of counterparties. These instruments include, but are not limited to, credit derivatives (credit default swaps and exchange-traded credit index instruments) and exposures from corporate credit spreads, and mortgage prepayments. Credit derivatives are used to hedge various credit exposures.

The diversification component of VaR is the risk reduction benefit that occurs when combining portfolios and offsetting positions, and from the correlated behavior of risk factor movements.

During 2017 , interest rate risk generated 39% of average gross VaR, foreign exchange risk generated 44% of average gross VaR, equity risk accounted for 5% of average gross VaR and credit risk generated 12% of average gross VaR. During 2017 , our daily trading loss did not exceed our calculated VaR amount of the overall portfolio.

The following table of total daily trading revenue or loss illustrates the number of trading days in which our trading revenue or loss fell within particular ranges during the past five quarters.

Distribution of trading revenue (loss) *(a)*	Quarter ended				
(dollars in millions)	**Dec. 31, 2017**	Sept. 30, 2017	June 30, 2017	March 31, 2017	Dec. 31, 2016
Revenue range:	Number of days				
Less than $(2.5)	**2**	—			
$(2.5) – $0	**4**	1	2	1	3
$0 – $2.5	**23**	29	31	31	28
$2.5 – $5.0	**22**	29	27	26	23
More than $5.0	**11**	4	4	4	7

(a) Trading revenue (loss) includes realized and unrealized gains and losses primarily related to spot and forward foreign exchange transactions, derivatives and securities trades for our customers and excludes any associated commissions, underwriting fees and net interest revenue.

Trading assets include debt and equity instruments and derivative assets, primarily interest rate and foreign exchange contracts, not designated as hedging instruments. Trading assets were $6.0 billion at Dec. 31, 2017 and $5.7 billion at Dec. 31, 2016 .

Trading liabilities include debt and equity instruments and derivative liabilities, primarily interest rate and foreign exchange contracts, not designated as hedging instruments. Trading liabilities were $4.0 billion at Dec. 31, 2017 and $4.4 billion at Dec. 31, 2016 .

Under our fair value methodology for derivative contracts, an initial “risk-neutral” valuation is performed on each position assuming time-discounting based on a AA credit curve. In addition, we consider credit risk in arriving at the fair value of our derivatives .

We reflect external credit ratings as well as observable credit default swap spreads for both ourselves and our counterparties when measuring the fair value of our derivative positions. Accordingly, the valuation of our derivative positions is sensitive to the current changes in our own credit spreads, as well as those of our counterparties.

At Dec. 31, 2017 , our OTC derivative assets of $3.1 billion included a CVA deduction of $27 million. Our OTC derivative liabilities of $3.6 billion included a debit valuation adjustment (“DVA”) of $1 million related to our own credit spread. Net of hedges, the CVA decreased by $9 million and the DVA decreased $1 million in 2017 . The net impact of these adjustments increased foreign exchange and other trading revenue by $8 million in 2017 . During 2017 , no realized loss was charged off against CVA reserves.

At Dec. 31, 2016 , our OTC derivative assets of $4.3 billion included a CVA deduction of $38 million. Our OTC derivative liabilities of $4.4 billion included a DVA of $3 million related to our own credit spread. Net of hedges, the CVA decreased by $16 million and the DVA decreased $4 million in 2016 . The net impact of these adjustments increased foreign exchange and other trading revenue by $12 million in 2016 . During 2016 , no realized loss was charged off against CVA reserves.

The table below summarizes the risk ratings for our foreign exchange and interest rate derivative counterparty credit exposure during the past five quarters. This information indicates the degree of risk to which we are exposed. Significant changes in ratings classifications for our foreign exchange and other trading activity could result in increased risk for us.

Foreign exchange and other trading counterparty risk rating profile *(a)*	Quarter ended				
	Dec. 31, 2017	Sept. 30, 2017	June 30, 2017	March 31, 2017	Dec. 31, 2016
Rating:					
AAA to AA-	**44%**	41%	44%	43%	35%
A+ to A-	**31**	30	27	36	39
BBB+ to BBB-	**20**	24	22	17	22
Non-investment grade (BB+ and lower)	**5**	5	7	4	4
Total	**100%**	100%	100%	100%	100%

(a) Represents credit rating agency equivalent of internal credit ratings.

Asset/liability management

Our diversified business activities include processing securities, accepting deposits, investing in securities, lending, raising money as needed to fund assets and other transactions. The market risks from these activities include interest rate risk and foreign exchange risk. Our primary market risk is exposure to movements in U.S. dollar interest rates and certain foreign currency interest rates. We actively manage interest rate sensitivity and use earnings simulation and discounted cash flow models to identify interest rate exposures.

An earnings simulation model is the primary tool used to assess changes in pre-tax net interest revenue. The model incorporates management's assumptions regarding interest rates, balance changes on core deposits, market spreads, changes in the prepayment behavior of loans and securities and the impact of derivative financial instruments used for interest rate risk management purposes. These assumptions have been developed through a combination of historical analysis and future expected pricing behavior and are inherently uncertain. As a result, the earnings simulation model cannot precisely estimate net interest revenue or the impact of higher or lower interest rates on net interest revenue. Actual results may differ materially from projected results due to timing, magnitude and frequency of interest rate changes, and changes in market conditions and management's strategies, among other factors.

Generally, there has been an inverse relationship between interest rates and client deposit levels. To the extent that actual behavior is different from that assumed in the models, there could be a significant change in net interest revenue sensitivity.

In the table below, we use the earnings simulation model to run various interest rate ramp scenarios from a baseline scenario. The interest rate ramp scenarios examine the impact of large interest rate movements. In each scenario, all currencies' interest rates are shifted higher or lower. Interest rate sensitivity is quantified by calculating the change in pre-tax net interest revenue between the scenarios over a 12-month measurement period.

The following table shows net interest revenue sensitivity for BNY Mellon.

Estimated changes in net interest revenue *(in millions)*	Dec. 31, 2017	Sept. 30, 2017	Dec. 31, 2016
Up 200 bps parallel rate ramp vs. baseline *(a)*	**$ (151)**	$ (2)	$ 6
Up 100 bps parallel rate ramp vs. baseline *(a)*	**17**	112	145
Long-term up 50 bps, short-term unchanged *(b)*	**105**	113	81
Long-term down 50 bps, short-term unchanged *(b)*	**(122)**	(129)	(88)

(a) In the parallel rate ramp, both short-term and long-term rates move in four equal quarterly increments.
(b) Long-term is equal to or greater than one year.

The baseline scenario used for the calculations in the estimated changes in net interest revenue table above is based on our quarter-end balance sheet and the spot yield curve. The 100 basis point ramp scenario assumes rates increase 25 basis points above the yield curve in each of the next four quarters and the 200 basis point ramp scenario assumes a 50 basis point per quarter increase.

Our net interest revenue sensitivity table above incorporates assumptions about the impact of changes in interest rates on depositor behavior based on historical experience. Given the current historically low interest rate environment and the potential change to the implementation of monetary policy, the impact of depositor behavior is highly uncertain. The lower sensitivity in the ramp up 200 basis point scenario compared with the 100 basis point scenario is driven by the assumption of increased deposit runoff and forecasted changes in the deposit pricing as rates rise.

Growth or contraction of deposits could also be affected by the following factors:

- Global economic uncertainty;
- Our ratings relative to other financial institutions' ratings; and
- Regulatory reform.

We also project future cash flows from our assets and liabilities over a long-term horizon and then discount these cash flows using instantaneous parallel shocks to prevailing interest rates. This measure reflects the structural balance sheet interest rate sensitivity by discounting all future cash flows. The aggregation of these discounted cash flows is the economic value of equity ("EVE"). The following table shows how the EVE would change in response to changes in interest rates.

Estimated changes in EVE	Dec. 31, 2017
Rate change:	
Up 200 bps vs. baseline	**(3.7)%**
Up 100 bps vs. baseline	**(1.5)%**

The asymmetrical accounting treatment of the impact of a change in interest rates on our balance sheet may create a situation in which an increase in interest rates can adversely affect reported equity and regulatory capital, even though economically there may be no impact on our economic capital position. For example, an increase in rates will result in a decline in the value of our available-for-sale securities portfolio. In this example, there is no corresponding change on our fixed liabilities, even though economically these liabilities are more valuable as rates rise.

These results do not reflect strategies that management could employ to limit the impact as interest rate expectations change.

To manage foreign exchange risk, we fund foreign currency-denominated assets with liability instruments denominated in the same currency. We utilize various foreign exchange contracts if a liability denominated in the same currency is not available or desired, and to minimize the earnings impact of translation gains or losses created by investments in foreign markets. We use forward foreign exchange contracts to protect the value of our net investment in foreign operations. At Dec. 31, 2017 , net investments in foreign operations totaled $14 billion and were spread across 13 foreign currencies.

Risk management overview

Governance

BNY Mellon’s management is responsible for execution of the Company’s risk appetite and the risk management and compliance framework and the governance structure that supports it, with oversight provided by BNY Mellon’s board of directors and two key board committees: the Risk Committee and the Audit Committee.

The Risk Committee is comprised entirely of independent directors and meets on a regular basis to review and assess the control processes with respect to the Company’s inherent risks. It also reviews and assesses the risk management activities of the Company and the Company’s risk policies and activities. Policy formulation and day-to-day oversight of the Company’s risk management framework is delegated to the Chief Risk Officer, who, together with the Chief Auditor and Chief Compliance Officer, helps ensure an effective risk management governance structure. The roles and responsibilities of the Risk Committee are described in more detail in its charter, a copy of which is available on our website, www.bnymellon.com.

The Audit Committee is also comprised entirely of independent directors, all of whom are financially literate within the meaning of the NYSE listing standards. Two members of the Audit Committee have been determined to be audit committee financial experts as set out in the rules and regulations under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), with accounting or related financial management expertise within the meaning of the NYSE listing standards, and to have banking and financial management expertise within the meaning of the FDIC rules. The Audit Committee meets on a regular basis to perform an oversight review of the integrity of the financial statements and financial reporting process, compliance with legal and regulatory requirements, our independent registered public accountant’s qualifications and independence, and the performance of our registered public accountant and internal audit function. The Audit Committee also reviews management’s assessment of the adequacy of internal controls. The functions of the Audit Committee are described in more detail in its charter, a copy of which is available on our website, www.bnymellon.com.

The Senior Risk Management Committee (“SRMC”) is the most senior management body responsible for ensuring that emerging risks are weighed against the corporate risk appetite. The SRMC also reviews any material breaches to our risk appetite and approves action plans required to remediate the issue. SRMC provides oversight for the risk management, compliance and ethics framework. The Chief Executive Officer, Chief Risk Officer and Chief Financial Officer are among SRMC’s members.

Primary risk types

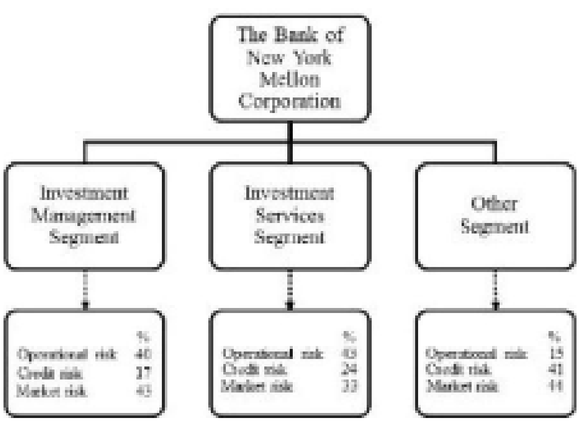
The understanding, identification and management of risk are essential elements for the successful management of BNY Mellon. Our primary risk categories are:

Type of risk	Description
Operational	The risk of loss resulting from inadequate or failed internal processes, human factors and systems, breaches of technology and information systems, or from external events. Also includes fiduciary risk, reputational risk, and litigation risk.
Market	The risk of loss due to adverse changes in the financial markets. Our market risks are primarily interest rate, foreign exchange, and equity risk. Market risk particularly impacts our exposures that are fair valued such as the securities portfolio, trading book, and equity investments.
Credit	The risk of loss if any of our borrowers or other counterparties were to default on their obligations to us. Credit risk is resident in the majority of our assets, but primarily concentrated in the loan and securities books, as well as off-balance sheet exposures such as lending commitments, letters of credit, and securities lending indemnifications.
Liquidity	The risk that BNY Mellon cannot meet its cash and collateral obligations at a reasonable cost for both expected and unexpected cash flows, without adversely affecting daily operations or financial conditions. Liquidity risk can arise from cash flow mismatches, market constraints from the inability to convert assets to cash, the inability to raise cash in the markets, deposit run-off, or contingent liquidity events.
Strategic	The risk that BNY Mellon doesn’t effectively manage and protect the firm’s market positioning and stability. This includes risks associated with the inability to maintain a strong understanding of clients’ needs, provide suitable product offerings that are financially viable and fit within the firm’s operating model and adapt to transformational change in the industry.

The following table presents the primary types of risk typically embedded in our balance sheet and our off-balance sheet instruments.

On- and off-balance sheet risks	
Assets:	
Interest-bearing deposits with banks	credit
Federal funds sold and securities purchased under resale agreements	market, credit
Securities	market, credit, liquidity
Trading assets	market, credit, liquidity
Loans	credit, liquidity
Goodwill	operational, market
Intangible assets	operational, market
Liabilities:	
Deposits	liquidity
Federal funds purchased and securities sold under repurchase agreements	market, liquidity
Trading liabilities	market, liquidity
Payables to customers and broker-dealers	liquidity
Off-balance sheet instruments:	
Lending commitments	credit, liquidity
Standby letters of credit	credit, liquidity
Commercial letters of credit	credit, liquidity
Securities lending indemnifications	market, credit

The following chart provides the economic capital allocated to our businesses. Liquidity and strategic risks are managed on a stand-alone basis at the consolidated and bank levels. Management of liquidity risk is the responsibility of Corporate Treasury, which is reported in the Other segment. The percentages below are based on the allocation of economic capital at Dec. 31, 2017 to absorb potential losses over a one-year period at a level consistent with the solvency of a target debt rating.



Operational risk

In providing a comprehensive array of products and services, we may be exposed to operational risk. Operational risk may result from, but is not limited to, errors related to transaction processing, breaches of internal control systems and compliance requirements, fraud by employees or persons outside BNY Mellon or business interruption due to system failures or other events. Operational risk may also include breaches of our technology and information systems resulting from unauthorized access to confidential information or from internal or external threats, such as cyberattacks. Operational risk also includes potential legal or regulatory actions that could arise as a result of noncompliance with applicable laws and/or regulatory requirements. In the case of an operational event, we could suffer financial losses as well as reputational damage.

To address these risks, we maintain comprehensive policies and procedures and an internal control framework designed to provide a sound operational environment. These controls have been designed to manage operational risk at appropriate levels given our financial strength, the business environment and markets in which we operate, and the nature of our businesses, and considering factors such as competition and regulation. Our internal auditors and internal control group monitor and test the overall effectiveness of our internal controls and financial reporting systems on an ongoing basis.

We have also established procedures that are designed to ensure compliance with generally accepted conduct, ethics and business practices which are defined in our corporate policies. These include training programs, such as for our “Code of Conduct” and “Know Your Customer” programs, and compliance training programs, such as those regarding information protection and suspicious activity reporting.

We have established operational risk management as an independent risk discipline. The organizational framework for operational risk is based upon a strong risk culture that incorporates both governance and risk management activities comprising:

- Board Oversight and Governance – The Risk Committee of the Board oversees our operational risk management strategy in addition to overseeing our strategic management of credit and market risk. The Risk Committee meets regularly to review operational risk management initiatives, discuss key risk issues and review the effectiveness of the risk management systems.

- Accountability of Businesses – Business managers are responsible for maintaining an effective system of internal controls commensurate with their risk profiles and in accordance with BNY Mellon policies and procedures.
- Corporate Operational Risk Management is responsible for developing risk management policies and tools for assessing, measuring, monitoring and managing operational risk for BNY Mellon. The primary objectives of Corporate Operational Risk Management are to promote effective risk management, identify emerging risks, create incentives for generating continuous improvement in controls and to optimize capital.
- The Technology Risk Group is responsible for developing policies, methods and tools for identifying, assessing, measuring, monitoring and governing information and technology risk for BNY Mellon. Technology Risk partners with the businesses to help maintain and protect the confidentiality, integrity and availability of the portfolio reviews.

Market risk

Our business activity tends to minimize outright or direct exposure to market risk, with such risk primarily limited to market volatility from trading activity in support of clients. More significant direct market risk is assumed in the form of interest rate and credit spread risk within the investment portfolio both as a means for forward asset/liability management and net interest revenue generation.

In addition to the Risk Committee, oversight of market risk is performed by the SRMC and Balance Sheet Risk Committee ("BSRC") and through executive review meetings. Detailed reviews of stress tests results are conducted during the Markets Weekly Risk Review. Senior managers from Risk Management, Finance and Sales and Trading attend the review. Regarding the Corporate Treasury function, oversight is provided by the Treasury Risk Committee, biweekly Portfolio Management Group risk meetings, Business Risk Committee and numerous portfolio reviews.

The Collateral Margin Review Committee reviews and approves the standards for collateral received or paid in respect of collateralized derivative agreements and securities financing transactions.

The Business Risk Committee for the Markets business also provides a forum for market risk oversight. The goal of the Business Risk Committee meeting, which is held at least quarterly, is to review key risk and control issues and related initiatives facing all lines of business, including Markets. Also addressed during the Business Risk Committee meetings are trading VaR and trading stressed VaR exposures against limits.

Finally, the Risk Quantification Review Group reviews back-testing results for the Company's VaR model.

Credit risk

The extension of credit is not considered a discrete product and is not, typically, attributable to a specific business, but instead is used as a means of supporting our clients and our business activity more holistically. Specifically, we extend direct credit in order to foster client relationships and as a method by which to generate interest income from the deposits that result from business activity. We extend and incur intraday credit exposure in order to facilitate our various processing activities.

To balance the value of our activities with the credit risk incurred in pursuing them, we set and monitor internal credit limits for activities that entail credit risk, most often on the size of the exposure and the quality of the counterparty. For credit exposures driven by changing market rates and prices, exposure measures include an add-on for such potential changes.

We manage credit risk at both the individual exposure level as well as the portfolio level. Credit risk at the individual exposure level is managed through our credit approval system and involves four approval levels up to and including the Chief Risk Officer of the Company. The requisite approvals are based upon the size and relative risk of the aggregate exposure under consideration. The Credit Risk Group is responsible for approving the size, terms and maturity of all credit exposures as well as the ongoing monitoring of the creditworthiness of the counterparty. In addition, they are responsible for assigning and maintaining the internal risk ratings on each exposure.

Credit risk management at the portfolio level is supported by the Enterprise Capital Adequacy Group, within Risk Management and Compliance. The Enterprise Capital Adequacy Group is responsible for calculating two fundamental credit measures. First, we project a statistically probable credit loss, used to help determine the appropriate loan loss reserve and to measure customer profitability. Credit loss considers three basic components: the estimated size of the exposure whenever default might occur, the probability of default before maturity and the severity of the loss we would incur, commonly called "loss given default." For institutional lending, where most of our credit risk is created, unfunded commitments are assigned a usage given default percentage. Borrowers/counterparties are assigned ratings by Credit Portfolio Managers on an 18-grade scale, which translate to a scaled probability of default. Additionally, transactions are assigned loss-given-default ratings (on a 7-grade scale) that reflect the transactions' structures including the effects of guarantees, collateral and relative seniority of position.

The second fundamental measurement of credit risk calculated by the Enterprise Capital Adequacy Group is called economic capital. Our economic capital model estimates the capital required to support the overall credit risk portfolio. Using a Monte Carlo simulation engine and measures of correlation among borrower defaults, the economic capital model examines extreme and highly unlikely scenarios of portfolio credit loss in order to estimate credit-related capital, and then allocates that capital to individual borrowers and exposures.

The Enterprise Capital Adequacy Group is responsible for the calculation methodologies and the estimates of the inputs used in those methodologies for the determination of expected loss and economic capital. These methodologies and input estimates are regularly evaluated to ensure their appropriateness and accuracy. As new techniques and data become available, the Enterprise Capital Adequacy Group attempts to incorporate, where appropriate, those techniques or data.

BNY Mellon seeks to limit both on- and off-balance sheet credit risk through prudent underwriting and the use of capital only where risk-adjusted returns warrant. We seek to manage risk and improve our portfolio diversification through syndications, asset sales, credit enhancements and active collateralization and netting agreements. In addition, we have a separate Credit Risk Review Group, which is part of Internal Audit, made up of experienced loan review officers who perform timely reviews of the loan files and credit ratings assigned to the loans.

Liquidity risk

Access to global capital markets and financial market utilities are fundamental to both our operating model and overall strategy. Without such access, it would be difficult, if not impossible, to process payments as well as settle and clear transactions on behalf of clients. Deterioration in our liquidity position, whether actual or perceived, can impact our market access by affecting participants' willingness to transact with us. Changes to our liquidity can be caused by various factors, such as funding mismatches, market constraints limiting the ability to liquidate assets, inability to issue debt, run-off of core deposits and contingent liquidity events, such as additional collateral posting. Changes in economic conditions or exposure to credit, market, operational, legal and reputational risks can also affect our liquidity. Our liquidity risk management practices are designed to maintain a strong liquidity profile, by actively managing both the quality of the investment portfolio and intraday liquidity positions, and by having sufficient deposits and other funding to meet timely payment and settlement obligations under both normal and stressed conditions.

Our overall approach to liquidity management is to have sources of liquidity that are sufficient in amount and diversity such that changes in funding requirements at the Parent and at our bank and broker-dealer subsidiaries can be accommodated routinely without material adverse impact on earnings, capital, daily operations or our financial condition.

The board of directors has the responsibility for oversight of liquidity risk management for the Company and approves the liquidity risk tolerances. The Asset Liability Committee ("ALCO") is the senior management committee responsible for the oversight of liquidity management. ALCO is responsible for appropriately executing board-approved strategies, policies and procedures for managing liquidity. Senior management is responsible for regularly reporting the liquidity position of the Company to the board of directors.

The BSRC provides governance over independent Risk oversight of liquidity risks associated with assets and liabilities, liquidity risk limits calibration, and the adequacy of related control procedures. The Treasury Risk Committee, which is chaired by Independent Risk Management, is responsible for reviewing liquidity stress tests and various liquidity metrics, including contractual cash flow gaps for liquidity, liquidity stress metrics and ratios, LCR, net stable funding ratio (“NSFR”) and client deposit concentration. The Treasury Risk Committee validates and approves stress test methodologies and assumptions, and an independent liquidity Risk function provides ongoing review and oversight of liquidity risk management.

BNY Mellon seeks to maintain an adequate liquidity cushion in both normal and stressed environments and seeks to diversify funding sources by line of business, customer and market segment. Additionally, we seek to maintain liquidity ratios within approved limits and liquidity risk tolerance, maintain a liquid asset buffer that can be liquidated, financed and/or pledged as necessary, and control the levels and sources of wholesale funds.

Potential uses of liquidity include withdrawals of customer deposits and client drawdowns on unfunded credit or liquidity facilities. We actively monitor unfunded lending-related commitments, thereby reducing unanticipated funding requirements.

When monitoring liquidity, we evaluate multiple metrics in order to have sufficient liquidity for expected and unexpected events. Metrics include cash flow mismatches, asset maturities, debt spreads, peer ratios, liquid assets, unencumbered collateral, funding sources and balance sheet liquidity ratios. We monitor the LCR, as well as various internal liquidity limits as part of our standard analysis to monitor depositor and market funding concentration, liability maturity profile and potential liquidity draws due to off-balance sheet exposure.

We also perform liquidity stress tests to evaluate whether the Company maintains sufficient liquidity resources under multiple stress scenarios, including stress tests required by rules adopted by the Federal Reserve under the Dodd-Frank Act. Stress tests are based on scenarios that measure liquidity risks under unlikely but plausible conditions. The Company performs these tests under various time horizons ranging from one day to one year in a base case, as well as supplemental tests to determine whether the Company’s liquidity is sufficient for severe market events and firm-specific events. Under our scenario testing program, the results of the tests indicate that the Company has sufficient liquidity.

Strategic Risk

Our strategy includes expanding our client base, increasing product offerings and better aligning certain business activities with market demand. Successful realization of our strategy requires that we provide expertise and insight through market-leading solutions that drive economies of scale while developing highly talented people and protecting our financial strength and stability. We understand and meet market and client expectations with suitable products and offerings that are financially viable and leverageable and that integrate into our business model.

Markets, and the manner in which our clients interact and transact within markets, can evolve quickly, such as when new or disruptive technologies are introduced. Failure to either anticipate or participate in transformational change within a given market could result in poor strategic positioning and potential negative financial impact.

Stress Testing

It is the policy of the Company to perform Enterprise-wide Stress Testing at regular intervals as part of its Internal Capital Adequacy Assessment Process (“ICAAP”). Additionally, the Company performs an analysis of capital adequacy in a stressed environment in its Enterprise-Wide Stress Test Framework, as required by the enhanced prudential standards issued pursuant to the Dodd-Frank Act.

Enterprise-Wide Stress Testing performs analyses across the Company’s lines of business, products, geographic areas, and risk types incorporating the results from the different underlying models and projections given a certain stress-test scenario. It is an important component of assessing the adequacy of capital as well as identifying any high risk touch points in business activities. Furthermore, by integrating enterprise-wide stress testing into the Company’s capital planning process, the results provide a forward-looking evaluation of the ability to complete planned capital actions in a more-adverse-than-anticipated economic environment.

Economic capital required

BNY Mellon has implemented a methodology to quantify economic capital. We define economic capital as the amount of capital required to absorb potential losses and reflects the probability of remaining solvent with a target debt rating over a one-year time horizon. We quantify economic capital requirements for the risks inherent in our business activities using statistical modeling techniques and then aggregate them at the consolidated level. A capital reduction, or diversification benefit, is applied to reflect the unlikely event of experiencing an extremely large loss in each type of risk at the same time. Economic capital requirements are directly related to our risk profile. As such, they have become a part of our ICAAP and, along with regulatory capital, are a key component to ensuring that the actual level of capital is commensurate with our risk profile and sufficient to provide the financial flexibility to undertake future strategic business initiatives.

The framework and methodologies to quantify each of our risk types have been developed by the Enterprise Capital Adequacy Group and are designed to be consistent with our risk management principles. The framework has been approved by senior management and has been reviewed by the Risk Committee of the board of directors. Due to the evolving nature of quantification techniques, we expect to continue to refine the methodologies used to estimate our economic capital requirements.

The following table presents our economic capital required at Dec. 31, 2017, on a consolidated basis.

Economic capital required at Dec. 31, 2017 *(in millions)*		
Credit	$	4,387
Market		4,090
Operational		4,867
Other *(a)*		695
Economic capital required - consolidated	$	14,039
CET1	$	18,593
Capital cushion	$	4,554

(a) Includes interest rate risk, reputational risk and diversification benefit.

Global compliance

Our global compliance function provides leadership, guidance and oversight to help our businesses identify applicable laws and regulations and implement effective measures to meet the specific requirements. Compliance takes a proactive approach by anticipating evolving regulatory standards and remaining aware of industry best practices, legislative initiatives, competitive issues, and public expectations and perceptions. The function uses its global reach to disseminate information about compliance-related matters throughout BNY Mellon. The Chief Compliance and Ethics Officer reports to the Chief Risk Officer, is a member of key committees of BNY Mellon and provides regular updates to the Risk Committee of the board of directors.

Internal audit

Internal Audit is an independent, objective assurance function that reports directly to the Audit Committee of the Company's Board of Directors. It assists the Company in accomplishing its objectives by bringing a systematic, disciplined, risk-based approach to evaluate and improve the effectiveness of the Company's risk management, control and governance processes. The scope of Internal Audit's work includes the review and evaluation of the adequacy, effectiveness and sustainability of risk management procedures, internal control systems, information systems and governance processes.

Evolving Regulatory Environment

BNY Mellon engages in banking, investment advisory and other financial activities in the U.S. and 34 other countries, and is subject to extensive regulation in the jurisdictions in which it operates. Global supervisory authorities generally are charged with ensuring the safety and soundness of financial institutions, protecting the interests of customers, including depositors in banking entities and investors in mutual funds and other pooled vehicles, safeguarding the integrity of securities and other financial markets and promoting systemic resiliency and financial stability in the relevant country. They are not, however, generally charged with protecting the interests of our shareholders or non-deposit creditors. This discussion outlines the material elements of selected laws and regulations applicable to us. The impact of certain other laws and regulations, such as tax law, is discussed elsewhere in the Annual Report. Changes in these standards, or in their application, cannot be predicted, but may have a material effect on our businesses and results of operations.

The financial services industry has been the subject of enhanced regulatory oversight in the past decade globally, and this trend may continue in the future. Our businesses have been subject to a significant number of global reform measures. In particular, the Basel Committee's December 2010 final capital framework for strengthening international capital standards ("Basel III"), the Dodd-Frank Act and implementing regulations have significantly restructured the financial regulatory regime in the United States and enhanced supervision and prudential standards for large BHCs like BNY Mellon. The implications of Basel III and the Dodd-Frank Act for our businesses depend to a large extent on the manner in which implementing regulations continue to be established and interpreted by the primary U.S. financial regulatory agencies - the Federal Reserve, the FDIC, the Office of the Comptroller of the Currency ("OCC"), the SEC and the Commodity Futures Trading Commission ("CFTC"). The implications are also dependent on continuing changes in market practices and structures in response to the requirements of Basel III, the Dodd-Frank Act and financial reforms in other jurisdictions. Certain aspects of Basel III and the Dodd-Frank Act remain subject to further rulemaking, take effect over various transition periods, or contain other elements that make it difficult to precisely anticipate their full impact. In addition, other national and global non-U.S. reform measures adopted or under consideration by various policy makers that are being considered may materially adversely impact us.

Political developments may result in legislative and regulatory changes to key aspects of the Dodd-Frank Act, its implementing regulations, and related laws. In addition, the UK referendum vote to leave the European Union and the implementation of that decision have resulted in uncertainty as to the implementation, scope and timing of regulatory reforms affecting our UK and EU operations and contingency planning for our EU operating model.

Enhanced Prudential Standards and Large Exposures

Sections 165 and 166 of the Dodd-Frank Act direct the Federal Reserve to enact heightened prudential standards and early remediation requirements applicable to BHCs with total consolidated assets of $50 billion or more, such as BNY Mellon, and certain designated nonbank financial companies (generally referred to as "SIFIs"). The Dodd-Frank Act mandates that the requirements applicable to SIFIs be more stringent than those applicable to other financial companies.

The Federal Reserve has adopted rules ("Final SIFI Rules") to implement liquidity requirements, stress testing of capital and overall risk management requirements.

BNY Mellon must comply with enhanced liquidity and overall risk management standards, which include maintenance of a buffer of highly liquid assets based on projected funding needs for 30 days. The liquidity buffer is in addition to the U.S. banking agencies' rules regarding the LCR, discussed below, and is described by the Federal Reserve as being "complementary" to those liquidity standards.

The Final SIFI Rules do not address single-counterparty credit limits or early remediation provisions. On March 4, 2016, the Federal Reserve issued its re-proposal to limit credit exposures to single counterparties. With respect to BNY Mellon, which is a "major covered company" as defined in the re-proposal, the re-proposal prohibits having aggregate net credit exposure in excess of 15% of its Tier 1 capital to a "major counterparty," and 25% of its Tier 1 capital to any other counterparty. The

Federal Reserve's re-proposal requires securities finance transaction ("SFT") exposures to be calculated using the "collateral haircut approach" in the Standardized Approach, described below.

The Basel Committee has also developed a framework for large exposures, which is scheduled to become effective on Jan. 1, 2019. It will become binding on U.S. banking organizations only to the extent that the U.S. banking agencies implement the framework, including through the Federal Reserve's adoption of final single counterparty credit limits.

Capital Planning and Stress Testing

Payment of Dividends, Stock Repurchases and Other Capital Distributions

The Parent is a legal entity separate and distinct from its banks and other subsidiaries. Therefore, the Parent primarily relies on dividends, interest, distributions, and other payments from its subsidiaries, including extensions of credit from the IHC, to meet its obligations, including its obligations with respect to its securities, and to provide funds for share repurchases and payment of common and preferred dividends to its stockholders, to the extent declared by the board of directors. Various federal and state laws and regulations limit the amount of dividends that may be paid to the Parent by our bank subsidiaries without regulatory consent. If, in the opinion of the applicable federal regulatory agency, a depository institution under its jurisdiction is engaged in or is about to engage in an unsafe or unsound practice (which, depending on the financial condition of the bank, could include the payment of dividends), the regulator may require, after notice and hearing, that the bank cease and desist from such practice. The OCC, the Federal Reserve and the FDIC have indicated that the payment of dividends would constitute an unsafe and unsound practice if the payment would reduce a depository institution's capital to an inadequate level. Moreover, under the Federal Deposit Insurance Act, as amended (the "FDI Act"), an insured depository institution may not pay any dividends if the institution is undercapitalized or if the payment of the dividend would cause the institution to become undercapitalized. In addition, the federal bank regulatory agencies have issued policy statements which provide that FDIC-insured depository institutions and their holding companies should generally pay dividends only out of their current operating earnings.

In general, the amount of dividends that may be paid by our U.S. banking subsidiaries, including to the Parent, is limited to the lesser of the amounts calculated under a "recent earnings" test and an "undivided profits" test. Under the recent earnings test, a dividend may not be paid if the total of all dividends declared and paid by the entity in any calendar year exceeds the current year's net income combined with the retained net income of the two preceding years, unless the entity obtains prior regulatory approval. Under the undivided profits test, a dividend may not be paid in excess of the entity's "undivided profits" (generally, accumulated net profits that have not been paid out as dividends or transferred to surplus). The ability of our bank subsidiaries to pay dividends to the Parent may also be affected by the capital adequacy standards applicable to those subsidiaries, which include minimum requirements and buffers.

There are also limitations specific to the IHC's ability to make distributions or extend credit to the Parent. The IHC is not permitted to pay dividends to the Parent if certain key capital, liquidity and operational risk indicators are breached. Additionally, if our projected financial resources deteriorate so severely that resolution of the Parent becomes imminent, the committed lines of credit provided by the IHC to the Parent will automatically terminate, with all outstanding amounts becoming due.

BNY Mellon's capital distributions are subject to Federal Reserve oversight. The major component of that oversight is the Federal Reserve's CCAR, implementing its capital plan rule. That rule requires BHCs having $50 billion or more in total consolidated assets (including BNY Mellon) to submit annual capital plans to their respective Federal Reserve Bank. We are also required to collect and report certain related data on a quarterly basis to allow the Federal Reserve to monitor progress against the annual capital plans. Generally, BNY Mellon and other affected BHCs may pay dividends, repurchase stock and make other capital distributions only in accordance with a capital plan that has been reviewed by the Federal Reserve and as to which the Federal Reserve has not objected. The Federal Reserve may object to our capital plan for quantitative or qualitative reasons, including if the plan does not show that the covered BHC will meet, for each quarter throughout the nine-quarter planning horizon covered by the capital plan, all minimum regulatory capital ratios under applicable capital rules as in effect for that quarter on a *pro forma* basis under the base case and stressed scenarios (including a severely adverse scenario provided by the Federal Reserve). The capital plan rule also stipulates that we may not make a capital distribution unless after giving effect to the distribution it will meet all minimum regulatory capital ratios.

The purpose of CCAR is to ensure that these BHCs have robust, forward-looking capital planning processes that account for their unique risks and that permit continued operations during times of economic and financial stress. The 2018 CCAR instructions, consistent with prior Federal Reserve guidance, provide that capital plans contemplating dividend payout ratios exceeding 30% of projected after-tax net income will receive particularly close scrutiny. BNY Mellon's common stock dividend payout ratio was 23% for 2017. See "Capital" for information about our 2017 capital plan.

Regulatory Stress-Testing Requirements

In addition to the CCAR stress testing requirements, Federal Reserve regulations also include complementary Dodd-Frank Act Stress Tests ("DFAST"). The CCAR and DFAST requirements substantially overlap, and the Federal Reserve implements them at the BHC level on a coordinated basis. Under these DFAST regulations, we are required to undergo regulatory stress tests conducted by the Federal Reserve annually, and to conduct our own internal stress tests pursuant to regulatory requirements twice annually. In addition, The Bank of New York Mellon is required to conduct its own annual internal stress test (although the bank is permitted to combine certain reporting and disclosure of its stress test results with the results of BNY Mellon). These requirements involve testing of capital under various scenarios, including baseline, adverse and severely adverse scenarios provided by the appropriate banking regulator. Results from our annual company-run stress tests are reported to the appropriate regulators and published. The Federal Reserve published the results of its most recent annual 2017 DFAST stress-test on June 22, 2017. We published the results of our most recent company-run annual stress test on June 22, 2017, and the results of our company-run mid-year stress test on Oct. 23, 2017.

Capital Requirements - Generally

As a BHC, we are subject to U.S. capital rules, administered by the Federal Reserve. Our bank subsidiaries are subject to similar capital requirements administered by the Federal Reserve in the case of The Bank of New York Mellon and by the OCC in the case of our national bank subsidiaries, BNY Mellon, N.A. and The Bank of New York Mellon Trust Company, National Association. These requirements are intended to ensure that banking organizations have adequate capital given the risk levels of their assets and off-balance sheet exposures.

Notwithstanding the detailed U.S. capital rules, the federal banking agencies retain significant discretion to set higher capital requirements for categories of BHCs or banks or for an individual BHC or bank as situations warrant. The U.S. capital rules allow a graduated implementation schedule and will be substantially phased-in by 2019. BNY Mellon became subject to the SLR on Jan. 1, 2018.

U.S. Capital Rules - Minimum Risk-Based Capital Ratios and Capital Buffers

Consistent with the terms of the Basel III framework and the Dodd-Frank Act, the U.S. capital rules require Advanced Approaches banking organizations, such as BNY Mellon, to satisfy minimum risk-based capital ratios using both the U.S. capital rules' standardized approach risk-weightings framework (the "Standardized Approach") and the advanced approaches risk-weighting framework (the "Advanced Approaches"). These requirements are detailed above under "Results of Operations - Capital." In addition, these minimum ratios will be supplemented by a capital conservation buffer required threshold that began being phased in on Jan. 1, 2016, in increments of 0.625% per year until it reaches 2.5% on Jan. 1, 2019. The capital conservation buffer can only be satisfied with CET1 capital.

When systemic vulnerabilities are meaningfully above normal, the capital conservation buffer may be expanded up to an additional 2.5% through the imposition of a countercyclical capital buffer. For internationally active banks such as BNY Mellon, the countercyclical capital buffer required threshold is a weighted average of the countercyclical capital buffers deployed in each of the jurisdictions in which the bank has private sector credit exposures. The

Federal Reserve, in consultation with the OCC and FDIC, has affirmed the current countercyclical capital buffer level for U.S. exposures of 0% and noted that any future modifications to the buffer would generally be subject to a 12-month phase-in period. Any countercyclical capital buffer required threshold arising from exposures outside the United States will also generally be subject to a 12-month phase-in period.

The U.S. capital rules' buffers are also supplemented by a risk-based capital surcharge on G-SIBs (the "Final U.S. G-SIB Rule"). The final rule requires G-SIBs to calculate their surcharges under two methods (referred to as "method 1" and "method 2") and use the higher of the two surcharges. The first method is based on the Basel Committee's framework and considers a G-SIB's size, interconnectedness, cross-jurisdictional activity, substitutability and complexity. The second method uses similar inputs, but is calibrated to result in significantly higher surcharges and replaces substitutability with a measure of reliance on short-term wholesale funding. The Final U.S. G-SIB Rule does not add the G-SIB surcharge to post-stress minimum risk-based capital ratios for purposes of DFAST or CCAR. Consistent with the phase-in of the capital conservation buffer, the G-SIB capital surcharge began to be phased-in beginning on Jan. 1, 2016 and will become fully effective on Jan. 1, 2019. For 2018, the G-SIB surcharge applicable to BNY Mellon will be 1.5% on a fully phased-in basis, subject to applicable phase-ins.

U.S. Capital Rules - Deductions from and Adjustments to Capital Elements

The U.S. capital rules provide for a number of deductions from and adjustments to CET1 capital. These include, for example, providing that unrealized gains and losses on all available-for-sale debt securities may *not* be filtered out for regulatory capital purposes, and the requirement that mortgage servicing rights, deferred tax assets dependent upon future taxable income and significant investments in non-consolidated financial entities be deducted from CET1 to the extent that any one such category exceeds 10% of CET1 or all such categories in the aggregate exceed 15% of CET1.

U.S. Capital Rules - Advanced Approaches Risk-Based Capital Rules

Under the U.S. capital rules' Advanced Approaches framework, credit risk risk-weightings are generally based on risk-sensitive approaches that largely rely on the use of internal credit models and parameters, whereas under the Standardized Approach credit risk risk-weightings are generally based on supervisory risk-weightings which vary primarily by counterparty type and asset class. BNY Mellon is required to comply with Advanced Approaches reporting and public disclosures. Under the U.S. capital rules, this means, among other things, for purposes of determining whether we meet minimum risk-based capital requirements, our CET1 ratio, Tier 1 capital ratio, and total capital ratio is the lower of that calculated under the Standardized Approach and under the Advanced Approaches framework.

U.S. Capital Rules - Generally Applicable Risk-Based Capital Rules: Standardized Approach

The agencies' generally applicable risk-based capital rules (i.e., the Standardized Approach) calculate risk-weighted assets in the denominator of capital ratios using a broad array of risk weighting categories that are intended to be risk sensitive. The risk-weights for the Standardized Approach generally range from 0% to 1,250%. Higher risk-weights under the Standardized Approach apply to a variety of exposures, including certain securitization exposures, equity exposures, claims on securities firms and exposures to counterparties on OTC derivatives.

Concerning securities finance transactions, including transactions in which we serve as agent and provide securities replacement indemnification to a securities lender, the U.S. capital rules do not permit a banking organization to use a simple VaR approach to calculate exposure amounts for repo-style transactions or to use internal models to calculate the exposure amount for the counterparty credit exposure for repo-style transactions under the Standardized Approach (although these methodologies are allowed in the Advanced Approaches). Under the Standardized Approach, a banking organization may use a collateral haircut approach to recognize the credit risk mitigation benefits of financial collateral that secures a repo-style transaction, including an agented securities lending transaction, among other transactions. To apply the collateral haircut approach, a banking organization must determine the exposure amount and the relevant risk weight for the counterparty and collateral posted.

Leverage Ratios

The U.S. capital rules require a minimum 4% leverage ratio for all banking organizations and a new 3% Basel III-based SLR for Advanced Approaches banking organizations, including BNY Mellon, which became effective Jan. 1, 2018. Unlike the Tier 1 leverage ratio, the SLR includes certain off-balance sheet exposures in the denominator, including the potential future credit exposure of derivative contracts and 10% of the notional amount of unconditionally cancelable commitments.

The U.S. G-SIBs (including BNY Mellon) and their insured depository institution subsidiaries are subject to an enhanced SLR, which requires us to maintain an SLR of greater than 5% (composed of the current minimum requirement of 3% plus a greater than 2% buffer) and requires bank subsidiaries of those BHCs to maintain at least a 6% SLR in order to qualify as "well capitalized" under the prompt corrective action regulations discussed below. The final enhanced SLR rule for U.S. G-SIBs, like the SLR more generally applicable to all Advanced Approaches banking organizations, became effective on Jan. 1, 2018. At Dec. 31, 2017, our SLR was 6.1 % and the SLR for our primary banking subsidiary, The Bank of New York Mellon, was 6.9 %.

BCBS Revisions to Components of Basel III

On Dec. 7, 2017 the BCBS released revisions to Basel III intended to reduce variability of RWA and improve the comparability of banks' risk-based capital ratios. Among other measures, the final revisions: (1) establish a revised Standardized Approach for credit risk that enhances the Standardized Approach's granularity and risk sensitivity, including using a more risk sensitive exposure measurement method for securities financing transactions; (2) adjust the internal ratings-based approaches for credit risk by removing the use of the advanced internal ratings-based approach for certain asset classes and establishing input floors for the calculation of RWA; (3) replace the advanced measurement approach for operational risk with a revised Standardized Approach for operational risk based on measures of a bank's income and historical losses; (4) revise the leverage ratio exposure measure, establish a "leverage ratio buffer" for G-SIBs, set at 50% of a G-SIB's risk-based capital surcharge, and allow national discretion to exclude central bank placements in limited circumstances; and (5) introduce a new 72.5% output floor based on the Standardized Approach. The revised standards are effective Jan. 1, 2022, with the output floor phasing in from 2022 to 2027.

Further, the BCBS announced that it would extend the market risk capital requirements implementation date from Jan. 1, 2019, to Jan. 1, 2022, to align with the other BCBS revisions and to give the BCBS an opportunity to review the market risk framework further. There is continuing uncertainty regarding whether and how the U.S. regulators will implement these standards.

Total Loss-Absorbing Capacity

On Dec. 15, 2016, the Federal Reserve issued a final rule (the "TLAC Rule") establishing external total loss-absorbing capacity ("TLAC") and related requirements for U.S. G-SIBs, including BNY Mellon, at the top-tier holding company level. The TLAC Rule will be effective on Jan. 1, 2019.

Under the TLAC Rule, U.S. G-SIBs will be required to maintain a minimum eligible external TLAC equal to the greater of (a) 18% of RWAs plus a buffer (to be met using only CET1) equal to the sum of 2.5% of RWAs, the G-SIB surcharge calculated under method 1 and any applicable countercyclical buffer; and (b) 7.5% of their total leverage exposure (the denominator of the SLR) plus a buffer (to be met using only Tier 1 Capital) equal to 2% composed solely of Tier 1 capital.

U.S. G-SIBs also will be required to maintain minimum external eligible long-term debt ("LTD") equal to the greater of (a) 6% of RWAs plus the G-SIB surcharge (calculated using the greater of method 1 and method 2), and (b) 4.5% of total leverage exposure. In order to be deemed eligible LTD, debt instruments must, among other requirements, be unsecured, not be structured notes, be governed by U.S. law, and have a maturity of more than one year from the date of issuance. In addition, the TLAC Rule requires that LTD issued on or after Dec. 31, 2016 (i) not have acceleration rights, other than in the event of non-payment or the bankruptcy or insolvency of the issuer and (ii) be governed by U.S. law. However, debt issued by a U.S. G-SIB prior to Dec. 31, 2016 is permanently grandfathered to the extent these securities would be ineligible only due to containing impermissible acceleration rights or being governed by foreign law.

Further, the top-tier holding companies of U.S. G-SIBs are not permitted to issue certain guarantees of subsidiary liabilities, incur liabilities guaranteed by subsidiaries, issue short-term debt to third parties, or enter into derivatives and certain other financial contracts with external counterparties. Certain liabilities are capped at 5% of the value of the U.S. G-SIB's eligible external TLAC instruments. The Federal Reserve considered requiring internal TLAC at domestic subsidiaries of U.S. G-SIBs, but has not proposed rules regarding these instruments. Foreign jurisdictions may impose internal TLAC requirements on the foreign subsidiaries of U.S. G-SIBs.

Prompt Corrective Action

The FDI Act, as amended by the Federal Deposit Insurance Corporation Improvement Act of 1991 ("FDICIA"), requires the federal banking agencies to take "prompt corrective action" in respect of depository institutions that do not meet specified capital requirements. FDICIA establishes five capital categories for FDIC-insured banks: "well capitalized," "adequately capitalized," "undercapitalized," "significantly undercapitalized," and "critically undercapitalized." The FDI Act imposes progressively more restrictive constraints on operations, management and capital distributions the less capital the institution holds. While these regulations apply only to banks, such as The Bank of New York Mellon and BNY Mellon, N.A., the Federal Reserve is authorized to take appropriate action against the parent bank holding company, such as the Parent, based on the under-capitalized status of any banking subsidiary. In certain circumstances, the Parent would be required to guarantee the performance of the capital restoration plan if one of our banking subsidiaries were undercapitalized.

The U.S. capital rules also maintain "well capitalized" thresholds for insured depository institutions under the federal banking agencies' prompt corrective action framework. Under the U.S. capital rules, an insured depository institution is deemed to be "well capitalized" if it has capital ratios as detailed above under "Results of Operations - Capital."

Effective Jan. 1, 2018, the U.S. capital rules also require an Advanced Approaches banking organization to maintain an SLR of at least 3% to qualify for the "adequately capitalized" status. In addition, as noted above, the U.S. federal banking agencies' revisions to the enhanced SLR establish a SLR "well capitalized" threshold of 6% for covered insured depository institutions, including The Bank of New York Mellon and BNY Mellon N.A.

Liquidity Standards - Basel III and U.S. Rules and Proposals

BNY Mellon is subject to the Final LCR Rule which is designed to ensure that BNY Mellon and its domestic bank subsidiaries maintain an adequate level of unencumbered HQLA equal to their expected net cash outflow for a 30-day time horizon under an acute liquidity stress scenario. As of Dec. 31, 2017, both the Parent and its domestic bank subsidiaries were in compliance with applicable LCR requirements.

The Basel Committee issued the final NSFR document in October 2014 which contemplates an additional liquidity measure, referred to as NSFR, which is designed to promote more medium- and long-term funding of the assets and activities of banking entities over a one-year time horizon.

In April 2016 and May 2016, the FDIC and the Federal Reserve, respectively, proposed an NSFR rule that would implement a quantitative long-term liquidity requirement applicable to large and internationally active banking organizations, including BNY Mellon. The proposed NSFR rule would implement a test similar to the Basel III framework's test for medium- and long-term funding of the assets and activities of banking entities over a one-year time horizon. Under the proposed rule, BNY Mellon's NSFR would be expressed as a ratio of its available stable funding to its required stable funding amount, and BNY Mellon would be required to maintain an NSFR of 1.0. BNY Mellon continues to evaluate the potential effects of this proposal on its operations. The proposed NSFR rule would have been effective Jan. 1, 2018 had it been finalized as proposed; however, final rules have not been issued.

Separately, as noted above, the Final SIFI Rules address liquidity requirements for BHCs with $50 billion or more in total assets, including BNY Mellon. These enhanced liquidity requirements include an independent review of liquidity risk management; establishment of cash flow projections; a contingency funding plan, and liquidity risk limits; liquidity stress testing under multiple stress scenarios and time horizons tailored to the specific products and profile of the company; and maintenance of a liquidity buffer of unencumbered highly liquid assets sufficient to meet projected net cash outflows over 30 days under a range of stress scenarios.

Volcker Rule

The Dodd-Frank Act imposed broad prohibitions and restrictions on proprietary trading and investments in or sponsorship of hedge funds and private equity funds by banking organizations and their affiliates, commonly referred to as the "Volcker Rule."

The Volcker Rule, subject to certain exceptions, prohibits "banking entities," including BNY Mellon, from engaging in proprietary trading and limits our sponsorship of, and investments in, private equity and hedge funds ("covered funds"), including our ability to own or provide seed capital to covered funds and the ability for a covered fund to share the same or similar name with a BNY Mellon affiliate. In addition, the Volcker Rule restricts us from engaging in certain transactions with covered funds (including, without limitation, certain U.S. funds for which BNY Mellon acts as both sponsor/manager and custodian).

The restrictions concerning proprietary trading do not contain a broad exemption for asset-liability management functions, but contain more limited exceptions for, among other things, bona fide liquidity risk management and risk-mitigating hedging activities, as well as certain classes of exempted instruments, including government securities. Ownership interests in covered funds that banking organizations organize and offer are generally limited to 3% of the total number or value of the outstanding ownership interests of any individual fund at any time more than one year after the date of its establishment, and with respect to the aggregate value of all such ownership interests in covered funds (when combined with ownership interests in covered funds held under the Volcker Rule's ABS issuer exemption and underwriting and market-making exemption), 3% of the banking organization's Tier 1 capital. Moreover, a banking entity relying on the Volcker Rule's exemption for sponsoring covered funds must deduct from its Tier 1 capital the value of related ownership interests, calculated in accordance with the final rule.

The final Volcker Rule regulations also require us to develop and maintain an extensive compliance program, subject to CEO attestation, addressing proprietary trading and covered fund activities.

Derivatives

U.S., EU and APAC regulators are in the process of implementing comprehensive rules governing the supervision, structure, trading and regulation of cleared and over-the-counter derivatives markets and participants. The Dodd-Frank Act, the European regulation on OTC derivatives (European Market Infrastructure Regulation, or "EMIR"), central counterparties and trade repositories, and APAC regulations each require or impose, or are in the process of formulating, a large number of requirements in this area, not all of which are final. However, increasingly, these regulatory regimes, individually and collectively, tend to affect the way various BNY Mellon subsidiaries operate, including where and with whom they transact, and therefore any such changes may impact business models and profitability of certain BNY Mellon subsidiaries.

The U.S. prudential regulators have adopted joint final rules establishing minimum margin requirements for the uncleared swap transactions engaged in by those dealers subject to their jurisdiction (each, a "Covered Swap Entity") with compliance requirements which began to apply in September 2016. From that point forward, variation margin requirements were phased in over a six-month period while initial margin requirements are being phased in over a four-year period. In each instance, the higher a Covered Swap Entity's derivatives exposure, the earlier in the phase-in period it will be required to comply. In addition, the new rules require the initial margin posted to or by a Covered Swap Entity be segregated at a third-party custodian. BNY Mellon has been complying with substantial, new variation margin requirements since March 1, 2017, and expects to begin complying with the initial margin requirements in September 2019.

Money Market Fund Reforms

SEC rules (the "MMF Rules") require institutional prime money market funds (including institutional municipal money market funds) ("MMFs") to maintain a floating NAV based on the current market value of the securities in their portfolios rounded to the fourth decimal place. Previously, such funds could maintain a stable NAV of $1.00. Government MMFs and retail MMFs are exempt from these requirements and may continue to maintain a stable NAV, provided each type of fund continues to satisfy certain definitional requirements under the new rule.

The MMF Rules also provide new tools to MMFs' boards of directors to address high net redemption activity during periods of market stress. In particular, the MMF Rules allow a MMF's board of directors to impose liquidity fees or temporarily suspend redemptions if a MMF's level of weekly liquid assets falls below certain thresholds. Government MMFs are not required to adopt the liquidity fees and redemption gates provision, but they may opt to do so.

Beyond these primary reforms, the MMF Rules also expand disclosure requirements, tighten diversification requirements and impose additional stress testing requirements. The MMF Rules also introduce a new Form N-CR, which requires MMFs to disclose certain events and related matters (for example, the imposition or removal of fees or gates, the primary consideration or factors taken into account by a board of directors in its decision related to fees and gates, and portfolio security defaults).

The European Union's Money Market Funds Regulation ("MMFR") was finalized in December 2016, and is expected to apply beginning in July 2018 for new MMFs and January 2019 for existing MMFs. MMFR is a significant change for the money market fund sector in the EU. In particular, constant net asset value ("CNAV") MMFs as they currently exist will need to convert into variable net asset value ("VNAV") MMFs, low volatility net asset value ("LVNAV") MMFs or public debt CNAV MMFs. Other significant restrictions would apply, such as the need for MMFs to apply liquidity fees and redemption gates, to diversify asset portfolios, extensive valuation and reporting requirements and prohibitions on external support.

SEC Rules on Mutual Funds

On Oct. 13, 2016, the SEC adopted regulations that impose new requirements on mutual funds, exchange-traded funds and other registered investment companies. The new rules will require mutual funds (other than money market funds) to provide portfolio-wide and position-level holdings data to the SEC on a monthly basis. This data would include the pricing of portfolio securities, information regarding repurchase and securities lending activities, and the terms of derivatives contracts. Information contained in reports for the last month of each fund's fiscal quarter would be made available to the public within 60 days of the end of the relevant quarter.

The new rules also impose liquidity risk management requirements that are intended to reduce the risk that funds will not be able to meet shareholder redemptions and to minimize the impact of redemptions on remaining shareholders. Each fund will be required to establish a liquidity risk management program; classify the investments in its portfolio into one of four liquidity categories; maintain a highly liquid investment minimum; and limit illiquid investments to 15% of net assets. The rules also permit funds to use swing pricing in certain circumstances although the SEC has delayed the effective date of these swing pricing provisions. The compliance dates for the reporting requirements depend on the applicable reporting form. Most funds will be required to comply with the liquidity risk management requirements by Dec. 1, 2018. BNY Mellon is evaluating the cost of compliance and the impact of the new regulations on its activities.

Recovery and Resolution

As required by the Dodd-Frank Act, the Federal Reserve and FDIC have jointly issued a final rule requiring certain organizations, including each BHC with consolidated assets of $50 billion or more, such as BNY Mellon, to submit periodically to the Federal Reserve and the FDIC a plan - referred to as the 165(d) resolution plan - for its rapid and orderly resolution in the event of material financial distress or failure. In addition, the FDIC has issued a final rule that requires insured depository institutions with $50 billion or more in total assets, such as The Bank of New York Mellon, to submit periodically to the FDIC a plan for resolution in the event of the institution's failure.

In April 2016, the FDIC and the Federal Reserve jointly determined that BNY Mellon's 2015 165(d) resolution plan was not credible or would not facilitate an orderly resolution under the U.S. Bankruptcy Code, the statutory standard established in the Dodd-Frank Act, and issued a joint notice of deficiencies and shortcomings regarding our plan and the actions that must be taken to address them, which we responded to in an Oct. 1, 2016 submission.

In December 2016, the agencies jointly determined that our Oct. 1, 2016 submission adequately remedied the identified deficiencies, and in December 2017, based on their review of our 2017 resolution plan, the agencies jointly determined that our 2017 plan satisfactorily addressed the shortcomings identified in the prior plan. The agencies found no deficiencies or shortcomings in BNY Mellon's 2017 plan. A public portion of our resolution plans and our October 2016 submission are available on the Federal Reserve's and FDIC's websites.

If the Federal Reserve and FDIC jointly determine that our future submissions are not credible and the covered BHC fails to address the deficiencies in a timely manner, the FDIC and the Federal Reserve may jointly impose more stringent capital, leverage or liquidity requirements or restrictions on our growth, activities or operations. If we continue to fail to adequately remedy any deficiencies, we could be required to divest assets or operations that the regulators determine necessary to facilitate our orderly resolution.

In connection with our single point of entry resolution strategy, we have established the IHC to facilitate the provision of capital and liquidity resources to certain key subsidiaries in the event of material financial distress or failure. In the second quarter of 2017, we entered into a binding support agreement that requires the IHC to provide that support. The support agreement required the Parent to transfer its intercompany loans and most of its cash to the IHC, and requires the Parent to continue to transfer cash and other liquid financial assets to the IHC.

BNY Mellon and the other U.S. G-SIBs are subject to heightened supervisory expectations for recovery and resolution preparedness under Federal Reserve rules and guidance. These expectations relate to capabilities critical to operational resilience and contingency planning, including: effective processes for managing, identifying and valuing collateral; a comprehensive understanding of obligations and exposures associated with payment, clearing and settlement activities; the ability to analyze liquidity and funding sources, uses and risks; demonstrated management information systems capabilities on a legal entity basis; and robust arrangements for the continued provision of shared and outsourced services. The Federal Reserve incorporates reviews of these key capabilities as part of its ongoing supervision of BNY Mellon. The European Union Bank Recovery and Resolution Directive ("BRRD") applies to various subsidiaries and branches of BNY Mellon.

BRRD provides for recovery and resolution planning and a set of harmonized powers to resolve or implement recovery of relevant institutions, including branches of non-European Economic Area ("EEA") banks operating within the EEA. BRRD includes the preparation of recovery and resolution plans, giving relevant EEA regulators powers to impose requirements on an institution before resolution actions become necessary; a set of resolution tools and powers to facilitate the resolution of failing entities, such as the power to "bail-in" the debt of an institution (including certain deposit obligations); and the power to require a firm to change its structure to remove impediments to resolvability. Certain BRRD requirements are currently subject to review, including the applicable moratoria provisions, as described below under "EU Banking Reform Package."

BRRD includes a minimum requirement for own funds, defined as regulatory capital, and eligible liabilities ("MREL") to ensure that institutions maintain enough capital capable of being written down and/or bailed-in. MREL will be set on a case-by-case basis for each institution subject to BRRD. MREL is the EU equivalent of TLAC, and is generally aligned with the FSB's TLAC proposals. In contrast with TLAC, MREL will apply to all institutions subject to BRRD (not only G-SIBs).

In addition, BRRD requires EU-domiciled credit institutions, and certain other firms, to prepare recovery plans or group recovery plans. Under BRRD, resolution authorities (rather than the institutions themselves) are responsible for drawing up resolution plans. We submitted recovery plans in respect of the following EMEA entities during 2017: The Bank of New York Mellon SA/NV and BNY Mellon Capital Markets EMEA Limited. We submitted a group recovery plan for Pershing Holdings (UK) Limited during 2017. We will submit updated recovery plans and group recovery plans during 2018 as required under applicable time frames.

The FSB also focused on cross-border resolution and measures to promote resolvability with the publication of principles and guidance relating to internal TLAC and the continued access to financial markets for firms in resolution in 2017, as well as the initiation of consultations relating to bail-in execution and funding strategies for resolution plans.

Final Rule on Qualified Financial Contracts

On Sept. 1, 2017, the Federal Reserve adopted a final rule to require U.S. G-SIBs and the U.S. operations of foreign G-SIBs to amend their covered qualified financial contracts ("QFCs"). The FDIC adopted a substantially equivalent rule on Oct. 30, 2017 and the OCC did so on Nov. 29, 2017. QFCs generally include derivatives, repurchase agreements and securities lending arrangements, among others. The final rule includes two key requirements. First, the final rule generally requires that QFCs of G-SIBs explicitly provide that any resolution stays applicable to the exercise of default rights with respect to such QFCs and that any resolution transfers under U.S. special resolution regimes apply to such covered QFCs. Second, the final rule requires that QFCs of G-SIBs be amended to neither permit the exercise of default or cross-default rights against entities covered by the final rule based on the resolution or bankruptcy of an affiliate of such entities, nor allow for any transfer restrictions with respect to such QFCs.

The final rule allows G-SIBs to comply with the rule by amending relevant agreements (with the consent of relevant counterparties) using the International Swaps and Derivatives Association 2015 Universal Resolution Stay Protocol (the "Protocol") or a similar protocol that accomplishes the contractual amendments required by the rule. BNY Mellon entities that engage in QFC activities covered by the Protocol have adhered to the Protocol. Compliance with the Federal Reserve's final rule will be required on a phased-in basis beginning on Jan. 1, 2019. BNY Mellon is evaluating the impact of the new regulations on its activities.

Cybersecurity Regulation

As of March 1, 2017 the New York State Department of Financial Services ("NYSDFS") requires financial institutions regulated by NYSDFS, including BNY Mellon, to establish a cybersecurity program, adopt a written cybersecurity policy, designate a chief information security officer, and have policies and procedures in place to ensure the security of information systems and non-public information accessible to, or held by, third parties. The NYSDFS rule also includes a variety of other requirements to protect the confidentiality, integrity and availability of information systems, as well as the annual delivery of a certificate of compliance.

Insolvency of an Insured Depository Institution or a Bank Holding Company; Orderly Liquidation Authority

If the FDIC is appointed as conservator or receiver for an insured depository institution such as The Bank of New York Mellon or BNY Mellon National Association ("BNY Mellon, N.A."), upon its insolvency or in certain other circumstances, the FDIC has the power to:

- Transfer any of the depository institution's assets and liabilities to a new obligor, including a newly formed "bridge" bank without the approval of the depository institution's creditors;
- Enforce the terms of the depository institution's contracts pursuant to their terms without regard to any provisions triggered by the appointment of the FDIC in that capacity; or
- Repudiate or disaffirm any contract or lease to which the depository institution is a party, the performance of which is determined by the FDIC to be burdensome and the disaffirmance or repudiation of which is determined by the FDIC to promote the orderly administration of the depository institution.

In addition, under federal law, the claims of holders of domestic deposit liabilities and certain claims for administrative expenses against an insured depository institution would be afforded a priority over other general unsecured claims against such an institution, including claims of debt holders of the institution, in the "liquidation or other resolution" of such an institution by any receiver. As a result, whether or not the FDIC ever sought to repudiate any debt obligations of The Bank of New York Mellon or BNY Mellon, N.A., the debt holders would be treated differently from, and could receive, if anything, substantially less than, the depositors of the bank.

The Dodd-Frank Act created a new resolution regime (known as the "orderly liquidation authority") for systemically important financial companies, including BHCs and their affiliates. Under the orderly liquidation authority, the FDIC may be appointed as receiver for the systemically important institution, and its failed nonbank subsidiaries, for purposes of liquidating the entity if, among other conditions, it is determined at the time of the institution's failure that it is in default or in danger of default and the failure poses a risk to the stability of the U.S. financial system.

If the FDIC is appointed as receiver under the orderly liquidation authority, then the powers of the receiver, and the rights and obligations of creditors and other parties who have dealt with the institution, would be determined under the Dodd-Frank Act's orderly liquidation authority provisions, and not under the insolvency law that would otherwise apply. The powers of the receiver under the orderly liquidation authority were based on the powers of the FDIC as receiver for depository institutions under the FDI Act. However, the provisions governing the rights of creditors under the orderly liquidation authority were modified in certain respects to reduce disparities with the treatment of creditors' claims under the U.S. Bankruptcy Code as compared to the treatment of those claims under the new authority. Nonetheless, substantial differences in the rights of creditors exist as between these two regimes, including the right of the FDIC to disregard the strict priority of creditor claims in some circumstances, the use of an administrative claims procedure to determine creditors' claims (as opposed to the judicial procedure utilized in bankruptcy proceedings), and the right of the FDIC to transfer assets or liabilities of the institution to a third party or a "bridge" entity.

Depositor Preference

Under U.S. federal law, claims of a receiver of an insured depository institution for administrative expenses and claims of holders of U.S. deposit liabilities (including foreign deposits that are payable in the U.S. as well as in a foreign branch of the depository institution) are afforded priority over claims of other unsecured creditors of the institution, including depositors in non-U.S. branches. As a result, such depositors could receive, if anything, substantially less than the depositors in U.S. offices of the depository institution.

Transactions with Affiliates

Transactions between BNY Mellon's banking subsidiaries, on the one hand, and the Parent and its nonbank subsidiaries and affiliates, on the other, are subject to certain restrictions, limitations and requirements, which include limits on the types and amounts of transactions (including extensions of credit and asset purchases by our banking subsidiaries) that may take place and generally require those transactions to be on arm's-length terms. In general, extensions of credit by a BNY Mellon banking subsidiary to any nonbank affiliate, including the Parent, must be secured by designated amounts of specified collateral and are limited in the aggregate to 10% of the relevant bank's capital and surplus for transactions with a single affiliate and to 20% of the relevant bank's capital and surplus for transactions with all affiliates. There are also limitations on affiliate credit exposures arising from derivative transactions and securities lending and borrowing transactions.

Deposit Insurance

Our U.S. banking subsidiaries, including The Bank of New York Mellon and BNY Mellon, N.A., accept deposits, and those deposits have the benefit of FDIC insurance up to the applicable limit. The current limit for FDIC insurance for deposit accounts is $250,000 for each depositor account. Under the FDI Act, insurance of deposits may be terminated by the FDIC upon a finding that the insured depository institution has engaged in unsafe and unsound practices, is in an unsafe or unsound condition to continue operations or has violated any applicable law, regulation, rule, order or condition imposed by a bank's federal regulatory agency.

The FDIC's Deposit Insurance Fund (the "DIF") is funded by assessments on insured depository institutions. The FDIC assesses DIF premiums based on a bank's average consolidated total assets, less the average tangible equity of the insured depository institution during the assessment period. For larger institutions, such as The Bank of New York Mellon and BNY Mellon, N.A., assessments are determined based on CAMELS ratings and forward-looking financial measures to calculate the assessment rate, which is subject to adjustments by the FDIC, and the assessment base.

Under the FDIC's regulations, a custody bank may deduct from its assessment base 100% of cash and balances due from depository institutions, securities, federal funds sold, and securities purchased under agreement to resell with a Standardized Approach risk-weight of 0% and may deduct 50% of such asset types with a Standardized Approach risk-weight of greater than 0% and up to and including 20%. This assessment base deduction may not exceed the average value of deposits that are classified as transaction accounts and are identified by the bank as being directly linked to a fiduciary or custodial and safekeeping account.

The Dodd-Frank Act requires the DIF reserve ratio to reach a minimum of 1.35% by Sept. 30, 2020, and authorizes the FDIC to implement special assessments on insured depository institutions to reach the required ratio. All large insured depository institutions, which includes The Bank of New York Mellon and BNY Mellon, N.A., are currently subject to a 4.5 basis point annual surcharge that will end on Dec. 31, 2018, or once the DIF reserve ratio reaches 1.35%, whichever comes first. If the reserve ratio does not reach 1.35% by Dec. 31, 2018, the FDIC will impose a one-time shortfall assessment on large insured depository institutions in proportion to each such institution's average surcharge assessment base between July 1, 2016 and Dec. 31, 2018.

In the EU, deposit insurance measures have also been implemented under the 2014 Deposit Guarantee Scheme Directive. This regulation extends the scope of deposit protection in the EU to cover most corporate entities, which will require certain BNY Mellon entities to contribute additional funds to new or existing deposit protection schemes to cover these additional deposits. The contributions and required systems enhancements may result in a significant additional expense for impacted BNY Mellon entities.

Source of Strength and Liability of Commonly Controlled Depository Institutions

BHCs are required by law to act as a source of strength to their bank subsidiaries. Such support may be required by the Federal Reserve at times when we might otherwise determine not to provide it. In addition, any loans by BNY Mellon to its bank subsidiaries would be subordinate in right of payment to depositors and to certain other indebtedness of its banks. In the event of a BHC's bankruptcy, any commitment by the BHC to a federal bank regulator to maintain the capital of a subsidiary bank will be assumed by the bankruptcy trustee and entitled to a priority of payment. In addition, in certain circumstances, BNY Mellon's insured depository institution subsidiaries could be held liable for losses incurred by another BNY Mellon insured depository institution subsidiary. In the event of impairment of the capital stock of one of BNY Mellon's national bank subsidiaries or The Bank of New York Mellon, BNY Mellon, as the banks' stockholder, could be required to pay such deficiency.

Incentive Compensation Arrangements Proposal

Section 956 of the Dodd-Frank Act requires federal regulators to prescribe regulations or guidelines regarding incentive-based compensation practices at certain financial institutions, including BNY Mellon. In April 2016, a joint proposed rule was released, replacing a previous 2011 proposal, which each of six agencies must separately approve. The timeframe for final implementation is currently unknown.

Anti-Money Laundering and the USA PATRIOT Act

A major focus of governmental policy on financial institutions has been aimed at combating money laundering and terrorist financing. The USA PATRIOT Act of 2001 contains numerous anti-money laundering requirements for financial institutions that are applicable to BNY Mellon's bank, broker-dealer and investment adviser subsidiaries and mutual funds and private investment companies advised or sponsored by our subsidiaries. Those regulations impose obligations on financial institutions to maintain a broad anti-money laundering program that includes internal controls, independent testing, compliance management personnel, training, and customer due diligence processes, as well as appropriate policies, procedures and controls to detect, prevent and report money laundering, terrorist financing and other suspicious activity, and to verify the identity of their customers. Certain of those regulations impose specific due diligence requirements on financial institutions that maintain correspondent or private banking relationships with non-U.S. financial institutions or persons.

Financial Crimes Enforcement Network ("FinCEN") Final Customer Due Diligence Rule

Effective July 11, 2016, FinCEN issued final rules under the Bank Secrecy Act to clarify and strengthen customer due diligence ("CDD") requirements, including a new requirement to identify and verify the identity of beneficial owners of legal entity customers. Covered financial institutions, including The Bank of New York Mellon and BNY Mellon, N.A., must comply with these rules by May 11, 2018. The rule reaffirms four pillars of an effective anti-money laundering ("AML") program (development of internal policies, procedures and related controls; designation of a compliance officer; a thorough and ongoing training program; and independent review for compliance) and adds a fifth: CDD, wherein a covered financial institution is required to implement and maintain risk-based procedures for conducting CDD that include the identification and verification of any beneficial owner(s) of each legal entity customer at the time a new account is opened on or after May 11, 2018.

New York State Department of Financial Services ("NYSDFS") anti-money laundering and anti-terrorism regulations

On June 30, 2016, the NYSDFS finalized its regulations requiring regulated institutions, including The Bank of New York Mellon, to maintain a transaction monitoring program to monitor transactions for potential Bank Secrecy Act ("BSA") and AML violations and suspicious activity reporting, and a watch list filtering program to interdict transactions prohibited by applicable sanctions programs.

The final regulations require a regulated institution to maintain programs to monitor and filter transactions for potential BSA and AML violations and prevent transactions with sanctioned entities. The final regulation requires regulated institutions annually to submit a board resolution or senior officer compliance finding confirming steps taken to ascertain compliance with the regulation. The final regulation became effective Jan. 1, 2017, and the annual certification requirement begins April 15, 2018.

Privacy and Data Protection

The privacy provisions of the Gramm-Leach-Bliley Act generally prohibit financial institutions, including BNY Mellon, from disclosing nonpublic personal financial information of consumer customers to third parties for certain purposes (primarily marketing) unless customers have the opportunity to "opt out" of the disclosure. The Fair Credit Reporting Act restricts information sharing among affiliates for marketing purposes.

In the EU, privacy law is currently regulated under the Data Protection Directive ("DPD"), implemented as a minimum standard into the domestic law of each EU member state. The DPD will be replaced in the EU by the General Data Protection Regulation ("GDPR"), which will be directly binding and applicable for each EU member state from May 25, 2018. The GDPR contains enhanced compliance obligations and increased penalties for non-compliance compared to the DPD.

Acquisitions/Transactions

Federal and state laws impose notice and approval requirements for mergers and acquisitions involving depository institutions or BHCs. The BHC Act requires the prior approval of the Federal Reserve for the direct or indirect acquisition by a BHC of more than 5% of any class of the voting shares or all or substantially all of the assets of a commercial bank, savings and loan association or BHC. In reviewing bank acquisition and merger applications, the bank regulatory authorities will consider, among other things, the competitive effect of the transaction, financial and managerial resources including the capital position of the combined organization, convenience and needs of the community factors, including the applicant's record under the Community Reinvestment Act of 1977 (the "CRA"), the effectiveness of the subject organizations in combating money laundering activities and the risk to the stability of the U.S. banking or financial system. In addition, prior Federal Reserve approval would be required for BNY Mellon to acquire direct or indirect ownership or control of any voting shares of a company with assets of $10 billion or more that is engaged in activities that are "financial in nature."

Regulated Entities of BNY Mellon and Ancillary Regulatory Requirements

BNY Mellon is registered as an FHC under the Bank Holding Company Act of 1956, as amended by the Gramm-Leach-Bliley Act and by the Dodd-Frank Act (the "BHC Act"). We are subject to supervision by the Federal Reserve. In general, the BHC Act limits an FHC's business activities to banking, managing or controlling banks, performing certain servicing activities for subsidiaries, engaging in activities incidental to banking, and engaging in any activity, or acquiring and retaining the shares of any company engaged in any activity, that is either financial in nature or complementary to a financial activity and does not pose a substantial risk to the safety and soundness of depository institutions or the financial system generally.

A BHC's ability to maintain FHC status is dependent on: (i) its U.S. depository institution subsidiaries qualifying on an ongoing basis as "well capitalized" and "well managed" under the prompt corrective regulations of the appropriate regulatory agency (discussed above under "Prompt Corrective Action"); (ii) the BHC itself, qualifying on an ongoing basis as "well capitalized" and "well managed" under applicable Federal Reserve regulations; and (iii) its U.S. depository institution subsidiaries continuing to maintain at least a "satisfactory" rating under the CRA.

An FHC that does not continue to meet all the requirements for FHC status will, depending on which requirements it fails to meet, lose the ability to undertake new activities, or make acquisitions, that are not generally permissible for BHCs without FHC status. As of Dec. 31, 2017, BNY Mellon and our U.S. bank subsidiaries were "well capitalized" based on the ratios and rules applicable to them.

The Bank of New York Mellon, BNY Mellon's largest banking subsidiary, is a New York state-chartered bank, and a member of the Federal Reserve System and is subject to regulation, supervision and examination by the Federal Reserve, the FDIC and the NYSDFS. BNY Mellon's national bank subsidiaries, BNY Mellon, N.A. and The Bank of New York Mellon Trust Company, National Association, are chartered as national banking associations subject to primary regulation, supervision and examination by the OCC.

We operate a number of broker-dealers that engage in securities underwriting and other broker-dealer activities in the United States. These companies are SEC-registered broker-dealers and members of Financial Industry Regulatory Authority, Inc. ("FINRA"), a securities industry self-regulatory organization. BNY Mellon's nonbank subsidiaries engaged in securities-related activities are regulated by supervisory agencies in the countries in which they conduct business.

Certain of BNY Mellon's public finance and advisory activities are regulated by the Municipal Securities Rulemaking Board and are required under the SEC's Municipal Advisors Rule to register with the SEC if they provide advice to municipal entities or certain other persons on the issuance of municipal securities, or about certain investment strategies or municipal derivatives.

Certain of BNY Mellon's subsidiaries are registered with the CFTC as commodity pool operators and/or commodity trading advisors and, as such, are subject to CFTC regulation. The Bank of New York Mellon is provisionally registered as a Swap Dealer (as defined in the Dodd-Frank Act) with the CFTC, and is a member of the National Futures Association ("NFA") in that same capacity. As a Swap Dealer, The Bank of New York Mellon is subject to regulation, supervision and examination by the CFTC and NFA.

Certain of our subsidiaries are registered investment advisors under the Investment Advisers Act of 1940, as amended, and as such are supervised by the SEC. They are also subject to various U.S. federal and state laws and regulations and to the laws and regulations of any countries in which they conduct business. Our subsidiaries advise both public investment companies which are registered with the SEC under the Investment Company Act of 1940 (the "'40 Act"), including the Dreyfus family of mutual funds, and private investment companies which are not registered under the '40 Act.

Certain of our investment management, trust and custody operations provide services to employee benefit plans that are subject to the Employee Retirement Income Security Act of 1974, as amended ("ERISA"), administered by the U.S. Department of Labor ("DOL"). ERISA imposes certain statutory duties, liabilities, disclosure obligations and restrictions on fiduciaries, as applicable, related to the services being performed and fees being paid.

Department of Labor Fiduciary Rule

In 2016, the DOL issued a final rule that, among other things, expands the definition of who is designated a "fiduciary" of an employee benefit plan or individual retirement account ("IRA") under ERISA and the Internal Revenue Code, respectively, and provides certain prohibited transaction exemptions. The final rule was originally scheduled to be phased in beginning in April 2017 and fully phased in by Jan. 1, 2018. However, on Feb. 3, 2017, President Trump issued a memorandum directing the acting Secretary of Labor to examine the rule. In response, the DOL delayed the applicability date of April 10, 2017 to June 9, 2017, and also delayed the applicability of certain restrictive conditions of the rule's prohibited transaction exemptions until Jan. 1, 2018 (the "Transition Period"). On Nov. 27, 2017 the DOL extended the Transition Period until July 1, 2019.

Operations and Regulations Outside the United States

In Europe, branches of The Bank of New York Mellon are subject to regulation in the countries in which they are established, in addition to being subject to oversight by the U.S. regulators referred to above. The Bank of New York Mellon SA/NV is a public limited liability company incorporated under the laws of Belgium. The Bank of New York Mellon SA/NV has been granted a banking license by the National Bank of Belgium ("NBB") and is authorized to carry out all banking and savings activities as a credit institution. The European Central Bank ("ECB") has responsibility for the direct supervision of significant banks and banking groups in the euro area, including The Bank of New York Mellon SA/NV. The ECB's supervision is carried out in conjunction with the relevant national prudential regulator (NBB in The Bank of New York Mellon SA/NV's case), as part of the single supervisory mechanism ("SSM"). The Bank of New York Mellon SA/NV conducts its activities in Belgium as well as through its branch offices in the UK, Ireland, Italy, Luxembourg, the Netherlands, France and Germany.

Certain of our financial services operations in the UK are subject to regulation and supervision by the Financial Conduct Authority ("FCA") and the Prudential Regulation Authority ("PRA"). The PRA is responsible for the authorization and prudential regulation of firms that carry on PRA-regulated activities, including banks. PRA-authorized firms are also subject to regulation by the FCA for conduct purposes. In contrast, FCA-authorized firms (such as investment management firms) have the FCA as their sole regulator for both prudential and conduct purposes. As a result, FCA-authorized firms must comply with FCA prudential and conduct rules and the FCA's Principles for Businesses, while dual-regulated firms must comply with the FCA conduct rules and FCA Principles, as well as the applicable PRA prudential rules and the PRA's Principles for Businesses.

The PRA regulates The Bank of New York Mellon (International) Limited, our UK incorporated bank, as well as the UK branch of The Bank of New York Mellon. Certain of BNY Mellon's UK incorporated subsidiaries are authorized to conduct investment business in the UK. Their investment management advisory activities and their sale and marketing of retail investment products are regulated by the FCA. Certain UK investment funds, including investment funds of BNY Mellon, are registered with the FCA and are offered for sale to retail investors in the UK.

Since the financial crisis, the European Union and its Member States have engaged in a significant overhaul of bank regulation and supervision. To increase the resilience of banks and to reduce the impact of potential bank failures, new rules on capital requirements for banks and bank recovery and resolution have been adopted.

Aspects of the European Union's Banking Union have entered into force in most EU jurisdictions. The UK is not participating in the Banking Union. The key components of the Banking Union include the single resolution mechanism ("SRM") and the SSM. The SRM approach endorses the bail-in rules established in the BRRD and is described in more detail above in the section addressing Recovery and Resolution.

In addition, the Capital Requirements Directive IV ("CRD IV") and Capital Requirements Regulation ("CRR") affect BNY Mellon's EU subsidiaries by implementing Basel III and other changes, including the enhancement of the quality of capital, and the strengthening of capital requirements for counterparty credit risk, resulting in higher capital requirements. In the EU Member States, CRD IV/CRR also introduces substantive parts of the new European supervisory architecture, including the development of a single set of harmonized prudential rules for financial services. This set of rules replaces existing separately implemented rules within EU Member States, with a harmonized approach to implementation across the EU. Elements of CRD IV/CRR apply not only to BNY Mellon banking branches and subsidiaries but also to investment management and brokerage entities. CRD IV/CRR became effective on Jan. 1, 2014, with certain provisions to be phased in from 2014 to 2019.

Our Investment Management and Investment Services businesses are subject to significant regulation in numerous jurisdictions around the world relating to, among other things, the safeguarding, administration and management of client assets and client funds.

Various new, revised and/or proposed European Union directives and regulations have or will have a significant impact on our provision of many of our products and services, including the Markets in Financial Instruments Directive II and Markets in Financial Instruments Regulations (collectively, "MiFID II"), the Alternative Investment Fund Managers Directive ("AIFMD"), the Directive on Undertakings for Collective Investments in Transferable Securities ("UCITS V"), the Central Securities Depositories Regulation ("CSDR"), the regulation on OTC derivatives, central counterparties and trade repositories (commonly known as "EMIR"), the Securities Financing Transactions Regulation ("SFTR") and the Payment Services Directive II ("PSD II"). These European Union directives and regulations may impact our operations and risk profile but may also provide new opportunities for the provision of BNY Mellon products and services. Several of these European directives and regulations are still subject to finalization by the legislature and/or substantial secondary legislation. This creates uncertainty as to business impact.

The types of activities in which the foreign branches of our banking subsidiaries and our international subsidiaries may engage are subject to various restrictions imposed by the Federal Reserve. Those foreign branches and international subsidiaries are also subject to the laws and regulatory authorities of the countries in which they operate and, in the case of banking subsidiaries, may be subject to regulatory capital requirements in the jurisdictions in which they operate.

EU Banking Reform Package

In November 2016, the European Commission published the so-called EU Banking Reform Package. This legislative package would amend CRD IV, CRR, BRRD and the Single Resolution Mechanism Regulation ("SRMR").

The proposed amendments to CRD IV include a proposal for non-EU G-SIBs (such as BNY Mellon) and certain other non-EU banking groups to have an "EU intermediate parent undertaking" ("EU IPU"). All EU credit institutions and certain EU investment firms in such non-EU G-SIBs/banking groups would need to fall within a corporate structure headed by the EU IPU. If this proposal is implemented in the form originally proposed by the European Commission, BNY Mellon would need to undertake significant changes in its corporate structure. Furthermore the EU IPU proposal in its original form may result in conflict with existing U.S. banking regulations that require structural separation between banking and non-banking activities.

Certain proposed amendments to BRRD relate to the powers of resolution authorities to suspend payment and delivery obligations (the "moratoria proposal"). This moratoria proposal seeks to extend the moratoria period from two business days to five working days for use both pre-resolution as well as in resolution (i.e. ten working days if used consecutively). The moratoria proposal also seeks to extend the scope of application to certain categories of deposits that are currently excluded. If such extensions to the moratoria are implemented, this may have adverse, industry-wide impacts, including for BNY Mellon's custody services, derivatives, securities financing and margin lending businesses, as well as adverse market-wide liquidity and capital impacts.

The proposed amendments to CRR include provisions relating to the leverage ratio, NSFR, MREL (including closer alignment to the final FSB TLAC standard), a revised Basel market risk framework, counterparty credit risk, exposures to CCPs, exposures to collective investment undertakings, large exposures and reporting/disclosure requirements. The time frame in which the EU Banking Reform Package may enter into force is unclear at present.

European Commission Proposals for New Prudential Regime for EU Investment Firms

In December 2017, the European Commission published legislative proposals to establish a new prudential regime for investment firms. Under the legislative proposals, most EU investment firms would move to a separate (i.e., non-CRD IV/CRR) prudential regime that is more tailored to investment firms and harmonized across the EU. The time frame in which the new prudential regime for investment firms may enter into force remains unclear at this stage.

European Deposit Insurance Scheme

The European Commission has proposed a European Deposit Insurance Scheme ("EDIS") for euro area member states. Under the EDIS proposal, existing national euro area deposit guarantee schemes would transition over a number of years to a mutualized deposit guarantee scheme applicable in the euro area.

European Financial Markets and Market Infrastructure

The EU continues to develop proposals and regulations in relation to financial markets and market infrastructures. MiFID II took effect on Jan. 3, 2018, both as a directive transposed into national law and as an immediately enforceable regulation. It affects EU member states and those financial institutions conducting business in the EEA and has required significant change to comply with relevant regulatory requirements, including extensive transaction reporting and market transparency obligations and a heightened focus on how financial institutions conduct business with and disclose information to their clients. MiFID II may create new business opportunities in European markets, but requires existing business activities and processes to be reviewed more closely.

Capital Markets Union ("CMU")

A key policy objective of the 2014-19 European Commission is to develop a Capital Markets Union ("CMU") in the EU. Related initiatives that have already been substantially progressed include a new Prospectus Regulation and a new Securitization Regulation. The Prospectus Regulation applies from July 21, 2019 (with certain elements subject to an earlier phase in period). The Securitization Regulation applies to securitization transactions from Jan. 1, 2019.

A number of CMU related priorities remain to be addressed during 2018 and 2019. The European Commission proposes to enhance the powers of the European Supervisory Agencies ("ESAs"), including the European Banking Authority ("EBA"), the European Securities and Markets Authority ("ESMA") and the European Insurance and Occupational Pensions Authority ("EIOPA"). In addition, the European Commission wishes to enhance cross-border funds distribution and to promote sustainable finance.

Investment Services and Investment Management in the European Union

The AIFMD has a direct effect on our alternative fund manager clients and our depository business and other products offered across Europe. AIFMD imposes heightened obligations upon depositories, which have operational effects.

Our businesses servicing regulated funds in Europe are also affected by the revised directive governing undertakings for collective investment in transferable securities, known as UCITS V.

In July 2017, ESMA published an *Opinion on Asset Segregation* under AIFMD and UCITS V. Among other things, the opinion recognizes the use of omnibus account structures when accounting for assets in a chain of custody. This opinion is a significant development for the tri-party collateral management and securities lending businesses, given the frequent changes of beneficial ownership which such omnibus account structures support.

AIFMD and UCITS V legislation is expected to be reviewed by the European Commission during 2018.

Making or continuing an investment in securities issued by us involves certain risks that you should carefully consider. The following discussion sets forth the most significant risk factors that could affect our business, financial condition or results of operations. Some of these risks are interrelated and the occurrence of one may exacerbate the effect of others. However, factors other than those discussed below or in other of our reports filed with or furnished to the SEC also could adversely affect our business, financial condition or results of operations. We cannot assure you that the risk factors described below or elsewhere in our reports address all potential risks that we may face. These risk factors also serve to describe factors which may cause our results to differ materially from those described in forward-looking statements included herein or in other documents or statements that make reference to this Annual Report. See "Forward-looking Statements."

Operational Risk

A communications or technology disruption or failure that results in a loss of information or impacts our ability to provide services to our clients may materially adversely affect our business, financial condition and results of operations.

We use communications and information systems to conduct our business. Our businesses are highly dependent on our ability to process large volumes of data that require global capabilities and scale from our technology platforms. If our technology or communications fail, or those of our service providers or industry utilities, we could experience, and have in the past experienced, production and system outages or failures. Any such outage or failure could adversely affect our ability to effect transactions or service our clients, which could expose us to liability for damages, result in the loss of business, damage our reputation, subject us to regulatory scrutiny or sanctions or expose us to litigation, any of which could have a material adverse effect on our business, financial condition and results of operations. Security or technology disruptions or failures that impact our communications or information systems, could affect our ability to provide services to our clients.

Upgrading our computer systems, software and networks may also subject us to disruptions or failures due to the complexity and interconnectedness of our systems, software and networks. The failure to upgrade or maintain these computer systems, software and networks could result in ongoing attacks, unauthorized access and misuse. There can be no assurance that any such failures or interruptions will not occur or, if they do occur, that they will be adequately addressed. We may be required to expend significant additional resources to modify, investigate or remediate vulnerabilities or other exposures arising from information systems' security risks. Due to the evolving connectivity among financial institutions, a disruptive event or failure experienced by one party could disrupt the functioning of the overall financial system.

Third parties with which we do business or that facilitate our business activities, including exchanges, clearing houses, financial intermediaries or vendors that provide services or security solutions for our operations, could also be sources of technology risk to us, including from breakdowns or failures of their own systems or capacity constraints or other services that impair our ability to process transactions and communicate with customers and counterparties. In addition, we are exposed to the risk that a technology disruption or other information security event at a common vendor to our third-party service providers could impede their ability to provide products or services to us. We may not be able to effectively monitor or mitigate operational risks relating to the use of common vendors by third-party service providers.

As our business areas evolve, whether due to the introduction of technology, new service offering requirements for our clients, or changes in regulation relative to these service offerings, unforeseen risks materially impacting our business operations could arise. The technology used can become increasingly complex and rely on the continued effectiveness of the programming code and integrity of the inputted data. Rapid technological changes and competitive pressures require us to make significant and ongoing investments in technology not only to develop competitive new products and services or adopt new technologies, but to sustain our current businesses. Our financial performance depends in part on our ability to develop and market these new products and services in a timely manner at a competitive price and adopt or develop new technologies that differentiate our products or provide cost efficiencies. The failure to ensure adequate review and consideration of critical business changes prior to and during introduction and deployment of key technological systems or failure to adequately align evolving client commitments and expectations with operational capabilities, may adversely impact our ability to service and retain customers and could have a negative impact on our operations. The costs we incur in enhancing our technology could be substantial and may not ultimately improve our competitiveness or profitability. We maintain controls designed to reduce the risk of the unsuccessful implementation of our models, systems or processes, but such risk cannot be completely eliminated. Any technology or communications failure could, among other things, adversely affect our ability to effect transactions, service our clients, manage our exposure to risk or expand our businesses. While we continue to improve and invest in the resiliency of our technology systems, there can be no guarantee that a technology outage will not occur. For a discussion of operational risk, see “Risk Management - Operational Risk” and “Business Continuity.”

As a result of financial entities, central agents, clearing agents and houses, exchanges and technology systems across the globe becoming more interdependent and complex, a technology failure that significantly degrades, deletes or compromises the systems or data of one or more financial entities or suppliers could have a material impact on counterparties or other market participants, including us.

We rely on a variety of measures to protect our intellectual property and proprietary information, including copyrights, trademarks, patents and controls on access and distribution. These measures may not prevent misappropriation or infringement of our intellectual property or proprietary information and a resulting loss of competitive advantage. Furthermore, if a third party were to assert a claim of infringement or misappropriation of its proprietary rights, obtained through patents or otherwise, against us, we could be required to spend significant amounts to defend such claims, develop alternative methods of operations, pay substantial money damages, obtain a license from the third party or possibly stop providing one or more products or services.

A cybersecurity incident, or a failure to protect our computer systems, networks and information and our clients’ information against cybersecurity threats, could result in a loss of information, adversely impact our ability to conduct our businesses, and damage our reputation and cause losses.

Our businesses rely heavily on technology, and are vulnerable to cybersecurity threats and disruptions that are occurring globally with greater frequency. We regularly experience cybersecurity incidents, which can include, among other things, hacker attacks, computer viruses or other malicious software, denial of service efforts, limited unavailability of service, phishing attacks and unauthorized access attempts. While we deploy a broad range of sophisticated defenses, it is possible we could suffer a material adverse impact or disruption. The security of our computer systems, software and networks, and those functions that we may outsource, may continue to be subjected to cybersecurity threats that could result in material failures or disruptions in our business.

Cybersecurity incidents may occur through intentional or unintentional acts by individuals or groups having authorized or unauthorized access to our systems or our clients’ or counterparties’ information, which may include confidential information. These individuals or groups include employees, vendors and customers, as well as hackers. Third parties may also attempt to place individuals within BNY Mellon or fraudulently induce employees, vendors, customers or other users of our systems to disclose sensitive information in order to gain access to our data or that of our clients. A cybersecurity incident that results in the loss of information may require us to reconstruct lost data, reimburse clients for data and credit monitoring services, result in loss of customer business, or damage to our computers or systems and those of our customers and counterparties. These impacts could be costly and time-consuming and materially negatively impact our business operations, financial condition and reputation.

Despite our efforts to ensure the integrity of our systems and information, it is possible that we may not be able to anticipate or to implement effective preventive measures against all cybersecurity threats, or detect all such threats, especially because the techniques used change frequently or are not recognized until after they are launched, and because attacks can originate from a wide variety of sources, including outside third parties who are involved with organized crime or who may be linked to terrorist organizations or hostile foreign governments.

The failure to maintain an adequate technology infrastructure with effective cybersecurity controls relative to the type, size and complexity of operations, markets and products traded, access to trading venues and our market interconnectedness could impact operations and impede our productivity and growth, which could cause our earnings to decline or could impact our ability to comply with regulatory obligations leading to regulatory fines and sanctions.

Our business may be materially adversely affected by operational risk.

Given the global nature of our businesses, which includes our critical role in the clearance of U.S. government securities, tri-party repo and securities lending, we are required to accurately process large numbers of transactions each day on a timely basis. The transactions we process or execute are operationally complex and can involve numerous parties, jurisdictions, regulations and systems, and as such, are subject to execution and processing errors and failures. As our businesses evolve to even more complex and voluminous transactions, at ever increasing speeds, we must also evolve our processes, controls, workforce and technology, to accurately and timely execute those transactions, which may result in an increased risk of error. When errors do occur, they may be difficult to detect and fix in a timely manner.

As a result, operational errors could materially negatively impact our ability to conduct our business or service our clients, which could adversely affect our results of operations due to potentially higher expenses and lower revenues, could lower our capital ratios, create liability for us or our clients or negatively impact our reputation. Recurring operational issues may raise concerns among regulators regarding our governance and control environment and culture.

Affiliates or third parties with which we do business or that facilitate our business activities, could also be sources of execution and processing errors and failures. In certain jurisdictions we may be deemed to be statutorily liable for operational errors, fraud or breakdowns by these affiliates or third parties. Additionally, as a result of recent regulations, including the Alternative Investment Fund Managers Directive and the Undertakings for Collective Investment in Transferable Securities V, where, in the European Economic Area we act as depositary, the Company could be exposed to restitution risk for, among other things, errors or fraud perpetrated by a sub-custodian resulting in a loss or delay in return of client’s securities. Where we are not acting as a European Economic Area depositary, but where we provide custody services to a European Economic Area depositary, we may accept similar liabilities to that depositary as a matter of contract.

Failure to satisfy regulatory standards, including “well capitalized” and “well managed” status or capital adequacy and liquidity rules more generally, could result in limitations on our activities and adversely affect our business and financial condition.

Under U.S. and international regulatory capital adequacy rules and other regulatory requirements, BNY Mellon and our subsidiary banks must meet thresholds that include quantitative measures of assets, liabilities and certain off-balance sheet items, subject to qualitative judgments by regulators about components, risk weightings and other factors. As discussed in “Supervision and Regulation,” BNY Mellon is registered with the Federal Reserve as a BHC and an FHC. An FHC’s ability to maintain its status as an FHC is dependent upon a number of factors, including its U.S. bank subsidiaries’ qualifying on an ongoing basis as “well capitalized” and “well managed” under the banking agencies’ prompt corrective action regulations as well as applicable Federal Reserve regulations. Failure by an FHC or one of its U.S. bank subsidiaries to qualify as “well capitalized” and “well managed”, if unremedied over a period of time, would cause it to lose its status as an FHC and could affect the confidence of clients in it, compromising its competitive position. Additionally, an FHC that does not continue to meet all the requirements for FHC status could lose the ability to undertake new activities or make acquisitions that are not generally permissible for BHCs without FHC status or to continue such activities.

Our U.S. bank subsidiaries are also subject to regulatory capital requirements and the failure by one of our bank subsidiaries to maintain its status as “well capitalized” could lead to, among other things, higher FDIC assessments and could have reputational and associated business consequences. Moreover, the occurrence of a more significant decline in regulatory ratios by BNY Mellon or one of our U.S. bank subsidiaries or failure of one of our U.S. bank subsidiaries to maintain status as "adequately capitalized" would lead to regulatory sanctions and limitations and could lead the federal banking agencies to take "prompt corrective action."

If we or our subsidiary banks fail to meet U.S. and international minimum capital rules and other regulatory requirements, we may not be able to deploy capital in the operation of our business or distribute capital to stockholders, which may adversely affect our business. If we are not able to meet the additional, more stringent, capital adequacy standards that were recently promulgated, we may not remain "well capitalized." See "Supervision and Regulation," "Liquidity and dividends" and "Capital - Capital adequacy."

BNY Mellon and its domestic subsidiary banks must maintain an LCR at least equal to 100% to satisfy regulatory minimums. Failure to comply with the LCR requirements may result in supervisory or enforcement actions.

Failure to meet any current or future capital or liquidity requirements, including those imposed by the U.S. capital rules, the LCR, or by regulators in implementing other portions of the Basel III framework, could materially adversely affect our financial condition. The current regulatory environment is fluid as requirements are introduced and amended. See "Supervision and Regulation." Compliance with U.S. and international regulatory capital and liquidity requirements may impact our ability to return capital to shareholders and may impact our operations by requiring us to liquidate assets, increase borrowings, issue additional equity or other securities, or cease or alter certain operations, which may adversely affect our results of operations.

Although we expect to continue to satisfy our regulatory capital and liquidity requirements, there can be no assurances that we will not need to hold significantly more regulatory capital and liquid assets than we currently estimate in order to satisfy applicable standards. An inability to meet regulatory expectations regarding these matters may also negatively impact the assessment of BNY Mellon and its U.S. banking subsidiaries by U.S. banking regulators and our ability to make capital distributions.

Finally, our estimated regulatory capital ratios, liquidity metrics, and related components are based on our current interpretation, expectations and understanding of the applicable rules and are subject to, among other things, ongoing regulatory review, regulatory approval of certain statistical models, additional refinements, modifications or enhancements (whether required or otherwise) to our models, and further implementation guidance. Any modifications resulting from these ongoing reviews or the continued implementation of the U.S. capital rules, the LCR, the resolution planning process, and related amendments could result in changes in our risk-weighted assets, capital components, liquidity inflows and outflows, HQLA, or other elements involved in the calculation of these measures, which could impact these ratios. Further, because operational risk is currently measured based not only upon our historical operational loss experience but also upon ongoing events in the banking industry generally, our level of operational risk-weighted assets could significantly increase or otherwise remain elevated and may potentially be subject to significant volatility, negatively impacting our capital and liquidity ratios. The uncertainty caused by these factors could ultimately impact our ability to meet our goals, supervisory requirements, and regulatory standards.

We are subject to extensive government rulemaking, regulation and supervision. These rules and regulations have, and in the future may, compel us to change how we manage our businesses, which could have a material adverse effect on our business, financial condition and results of operations. In addition, these rules and regulations have increased our compliance and operational risk and costs.

As a large, internationally active financial services company, we operate in a highly regulated environment, and are subject to a comprehensive statutory and regulatory regime, including oversight by governmental agencies both inside and outside the U.S. Regulations and related regulatory guidance and supervisory oversight impact how we analyze certain business opportunities, our regulatory capital and liquidity requirements, the revenue profile of certain of our core activities and the products and services we provide. Any changes to the regulatory frameworks and environment in which we operate and the significant management attention and resources necessary to address those changes could materially adversely affect our business, financial condition and results of operations and have other negative consequences.

The evolving regulatory environment and uncertainty about the timing and scope of future regulations may contribute to decisions we may make to suspend, reduce or withdraw from existing businesses, activities or initiatives, which may result in potential lost revenue or significant restructuring or related costs or exposures.

The monetary, tax and other policies of various governments, agencies and regulatory authorities both in the U.S. and globally have a significant impact on interest rates, currencies, commodity pricing (including oil) and overall financial market performance, which can impact our business and results of operations. Changes in these policies are beyond our control and can be difficult to predict and we cannot determine the ultimate effect that any such changes would have upon our business, financial condition or results of operations.

Basel III and the Dodd-Frank Act have had a significant impact on the regulatory structure of the global financial markets and have imposed significant operational, compliance and risk management costs both in the near-term, as we develop and integrate appropriate systems and procedures, and on a recurring basis thereafter, as we monitor, support and refine those systems and procedures. While U.S. regulators have finalized many regulations to implement various provisions of the Dodd-Frank Act and Basel III, additional regulations or modifications to existing regulations are expected to continue to occur. In addition, there is uncertainty about the timing and scope of any changes to Basel III and the Dodd-Frank Act and other regulations adopted since the financial crisis, as well as the cost of complying with any new regulatory regimes. The full impact of these standards on us, our business strategies and financial performance is not known at this time, may not be known for a number of years and could materially adversely impact us.

The regulatory and supervisory focus of U.S. banking agencies is primarily intended to protect the safety and soundness of the banking system and federally insured deposits, and not to protect investors in our securities. Moreover, the regulatory and supervisory standards and expectations in one jurisdiction may not conform to standards or expectations in other jurisdictions. Even within a particular jurisdiction, the standards and expectations of multiple supervisory agencies exercising authority over our affairs may not be fully harmonized. Additionally, banking regulators have wide supervisory discretion in the ongoing examination and enforcement of applicable banking statutes, regulations, and guidelines, and may restrict our ability to engage in certain activities or acquisitions, or may require us to maintain more capital or highly liquid assets.

The U.S. capital rules subject us and our U.S. banking subsidiaries to more stringent capital requirements, which could restrict growth, activities or operations, trigger divestiture of assets or operations or limit our ability to return capital to shareholders. We must also separately obtain final approval from the agencies for the use of certain models used to calculate risk-weighted assets under the Advanced Approach. In addition, our operational loss risk projections are informed by certain external losses, including certain fines and penalties levied against other institutions in the financial services industry, particularly those that relate to businesses in which we operate, and as a result such external losses could impact the amount of capital that we are required to hold.

Failure to meet current or future capital requirements, either at the end of each fiscal quarter or under hypothetical stressed conditions during the annual CCAR exercise, could materially adversely affect our financial condition. Additional impacts relating to compliance with these rules could include, but are not limited to, potential dilution of existing shareholders and competitive disadvantage compared to financial institutions not under the same regulatory framework. In addition, the SLR subjects us to a more stringent leverage requirement, which could restrict growth, activities, operations or could result in certain restrictions on capital distributions and discretionary bonus payments.

The LCR requires us to maintain significant holdings of high quality and potentially lower-yielding liquid assets. In calculating the LCR, we must also determine which deposits should be considered to be stable deposits. Stable deposits must meet a series of requirements and typically receive favorable outflow treatment under the LCR. BNY Mellon uses qualitative and quantitative analysis to identify core stable deposits. It is possible that our LCR could fall below 100% as a consequence of the inherent uncertainties associated with this analysis (including as a result of additional guidance from our regulators). In addition to facing potential regulatory consequences (which could be significant), we may be required to remedy this shortfall by liquidating assets in our investment portfolio or raising additional debt, each of which could materially negatively impact our net interest revenue.

If the final rule regarding the NSFR is ultimately implemented in the U.S., those requirements could also require BNY Mellon to further increase its holdings of high quality, and potentially lower-yielding, liquid assets, and to reevaluate the composition of its liabilities structure to include more longer-dated debt.

Our global activities are also subject to extensive regulation by various non-U.S. regulators, including governments, securities exchanges, central banks and other regulatory bodies in the jurisdictions in which we operate, relating to, among other things, the safeguarding, administration and management of client assets and client funds. In some jurisdictions, the laws and regulations applicable to the financial services industry and post-crisis regulatory reform continue to evolve. Further the regulatory and supervisory standards and expectations across jurisdictions may be divergent and otherwise may not conform and/or may be applied in a manner that is not harmonized within a jurisdiction (in relation to national versus non-national financial services providers) and/or across jurisdictions.

In common with their U.S. counterparts, international policy makers and regulators have also increased their focus on financial services providers and our global activities are, and will continue to be, directly affected by changes to the regulatory environment. Various new, revised and proposed European Union directives and regulations have an impact on our provision of many of our products and services. Implementation of, and revisions to, these directives and regulations has affected our operations and risk profile, including the Capital Requirements Directive/Regulation, the Bank Recovery and Resolution Directive, the Deposit Guarantee Scheme Directive, the Markets in Financial Instruments Directive II/Regulation, the Alternative Investment Fund Managers Directive, the Directive on Undertakings for Collective Investments in Transferable Securities and the Payment Services Directive.

In addition, we are subject in our global operations to rules and regulations relating to corrupt and illegal payments and money laundering, economic sanctions and embargo programs administered by the U.S. Office of Foreign Assets Control and similar bodies and governmental agencies worldwide, and laws relating to doing business with certain individuals, groups and countries, such as the U.S. Foreign Corrupt Practices Act, the USA PATRIOT Act, the Iran Threat Reduction and Syria Human Rights Act of 2012 and the UK Bribery Act. While we have invested and continue to invest significant resources in training and in compliance monitoring, the geographical diversity of our operations, employees, clients and customers, as well as the vendors and other third parties that we deal with, presents the risk that we may be found in violation of such rules, regulations or laws and any such violation could subject us to significant penalties or adversely affect our reputation. In addition, such rules could impact our ability to engage in business with certain individuals, entities, groups and countries, which could materially adversely affect certain of our businesses and results of operations.

Failure to comply with laws, regulations or policies applicable to our business could result in sanctions by regulatory or governmental authorities, civil money penalties and reputational damage, which could have a material adverse effect on our business, financial condition and results of operations. If violations do occur, they could damage our reputation, increase our legal and compliance costs, and ultimately adversely impact our results of operations. Laws, regulations or policies currently affecting us and our subsidiaries, or regulatory and governmental authorities' interpretation of these statutes and regulations may change at any time, which may adversely impact our business and results of operations.

See “Supervision and Regulation” for additional information regarding the potential impact of the regulatory environment on our business.

Our risk management framework may not be effective in mitigating risk and reducing the potential for losses.

Our risk management framework seeks to mitigate risk and loss to us. We have established comprehensive policies and procedures and an internal control framework designed to provide a sound operational environment for the types of risk to which we are subject, including operational risk, credit risk, market risk, liquidity risk and strategic risk. W e have also established frameworks to mitigate risk and loss to us as a result of the actions of affiliates or third parties with which we do business or that facilitate our business activities. However, as with any risk management framework, there are inherent limitations to our current and future risk management strategies, including risks that we have not appropriately anticipated or identified.

Our regulators remain focused on ensuring that financial institutions build and maintain robust risk management policies. If our regulators perceive the quality of our risk models and framework to be insufficient, it may negatively impact our regulators' evaluations of our capital plans and stress tests. Accurate and timely enterprise-wide risk information is necessary to enhance management's decision-making in times of crisis. If our risk management framework proves ineffective or if our enterprise-wide management information is incomplete or inaccurate, we could suffer unexpected losses, which could materially adversely affect our results of operations or financial condition.

In certain instances, we rely on models to measure, monitor and predict risks. However, these models are inherently limited because they involve techniques, including the use of historical data, trends and assumptions, and judgments that cannot anticipate every economic and financial outcome in the markets in which we operate, nor can they anticipate the specifics and timing of such outcomes, especially during severe market downturns or stress events. These models may not appropriately capture all relevant risks or accurately predict future events or exposures. The models that we use to assess and control our market risk exposures also reflect assumptions about the degree of correlation among prices of various asset classes or other market indicators. The 2008 financial crisis and resulting regulatory reform highlighted both the importance and some of the limitations of managing unanticipated risks. In times of market stress or other unforeseen circumstances, previously uncorrelated indicators may become correlated, or previously correlated indicators may move in different directions. These types of market movements have at times limited the effectiveness of our hedging strategies and have caused us to incur significant losses, and they may do so in the future.

In addition, our businesses and the markets in which we operate are continuously evolving. We may fail to fully understand the implications of changes in our businesses or the financial markets or fail to adequately or timely enhance our risk framework to address those changes. If our risk framework is ineffective, either because it fails to keep pace with changes in the financial markets, regulatory requirements, our businesses, our counterparties, clients or service providers or for other reasons, we could incur losses, suffer reputational damage or find ourselves out of compliance with applicable regulatory or contractual mandates or expectations.

An important aspect of our risk management framework is creating a risk culture in which all employees fully understand that there is risk in every aspect of our business and the importance of managing risk as it relates to their job functions. We continue to enhance our risk management program to support our risk culture, ensuring that it is sustainable and appropriate to our role as a major financial institution. Nonetheless, if we fail to create the appropriate environment that sensitizes all of our employees to managing risk, our business could be adversely impacted. For more information on how we monitor and manage our risk management framework, see "Risk Management - Risk management overview."

A failure or circumvention of our controls and procedures could have a material adverse effect on our business, reputation, results of operations and financial condition.

Management regularly reviews and updates our internal controls, disclosure controls and procedures, and corporate governance policies and procedures. Any system of controls, however well designed and operated, is based in part on certain assumptions and can provide only reasonable, not absolute, assurances that the objectives of the system will be met. Any failure or circumvention of our controls and procedures or failure to comply with regulations related to controls and procedures could have a material adverse effect on our business, reputation, results of operations and financial condition. If we identify material weaknesses in our internal control over financial reporting or are otherwise required to restate our financial statements, we could be required to implement expensive and time-consuming remedial measures and could lose investor confidence in the accuracy and completeness of our financial reports. In addition, there are risks that individuals, either employees or contractors, may circumvent established control mechanisms in order to, for example, exceed exposure, liquidity, trading or investment management limitations, or commit fraud.

If our resolution plan is determined not to be credible or not to facilitate an orderly resolution under the U.S. Bankruptcy Code, our business, reputation, results of operations and financial condition could be materially negatively impacted. The application of our Title I preferred resolution strategy or resolution under the Title II orderly liquidation authority could adversely affect our liquidity and financial condition and our security holders.

Large BHCs must develop and submit to the Federal Reserve and the FDIC for review plans for their rapid and orderly resolution in the event of material financial distress or failure. BNY Mellon and The Bank of New York Mellon each file periodic complementary resolution plans. If the agencies determine that our future submissions are not credible or would not facilitate an orderly resolution under the U.S. Bankruptcy Code, and we fail to address the deficiencies in a timely manner, the agencies may jointly impose more stringent capital, leverage or liquidity requirements or restrictions on our growth, activities or operations. If we continue to fail to adequately remedy any deficiencies identified in future submissions, we could be required to divest assets or operations that the agencies determine necessary to facilitate our orderly resolution.

In the second quarter of 2017, in connection with our single point of entry resolution strategy under Title I of the Dodd-Frank Act, the Parent entered into a binding support agreement with certain key subsidiaries to facilitate the provision of capital and liquidity resources to them in the event of material financial distress or failure. Pursuant to the support agreement, the Parent transferred its intercompany receivables and most of its cash to the IHC and will continue to transfer cash and other liquid financial assets to the IHC, subject to certain amounts retained by the Parent to meet its near-term cash needs. In connection with the initial transfer, the IHC issued unsecured subordinated funding notes to the Parent and has provided the Parent with a committed line of credit for the Parent to service its near-term obligations. The support agreement requires the Parent to transfer significant excess liquid financial assets to the IHC on an ongoing basis, which heightens the Parent's dependence on the IHC and its other subsidiaries for its funding needs. The Parent's and the IHC's obligations under the support agreement are secured.

If our projected liquidity resources deteriorate so severely that resolution of the Parent becomes imminent, the committed line of credit the IHC provided to the Parent will automatically terminate, with all amounts outstanding becoming due and payable, and the support agreement will require the Parent to transfer most of its remaining assets (other than stock in subsidiaries and a cash reserve to fund bankruptcy expenses) to the IHC. As a result, during a period of severe financial stress the Parent could become unable to meet its debt and payment obligations (including with respect to its securities), causing the Parent to seek protection under bankruptcy laws earlier than it otherwise would have.

If the Parent were to become subject to a bankruptcy proceeding and our single point of entry strategy is successful, our material entities will not be subject to insolvency proceedings and their creditors would not be expected to suffer losses, while the Parent's security holders, including unsecured debt holders, could face significant losses, potentially including the loss of their entire investment. In the event any of our material entities were to become subject to an insolvency proceeding while the Parent is in resolution (or its resolution is imminent), unsecured creditors of our material entities would receive recoveries on their claims enjoying relative priority over the unsecured claims of the creditors of the Parent, including investors in its debt securities, relative to the assets of the Parent, IHC and the particular material entity. The single point of entry strategy - in which the Parent would be the only legal entity to enter resolution proceedings - is designed to result in greater risk of loss to holders of our unsecured senior debt securities and other securities than would be the case under a different resolution strategy.

Further, if the single point of entry strategy is not successful, our liquidity and financial condition would be adversely affected and our security holders may, as a consequence, be in a worse position than if the strategy had not been implemented.

In addition, Title II of the Dodd-Frank Act established an orderly liquidation process in the event of the failure of a large systemically important financial institution, such as BNY Mellon, in order to avoid or mitigate serious adverse effects on the U.S. financial system. Specifically, when a U.S. G-SIB, such as BNY Mellon is in default or danger of default, and certain specified conditions are met, the FDIC may be appointed receiver under the orderly liquidation authority, and BNY Mellon would be resolved under that authority instead of the U.S. Bankruptcy Code.

U.S. supervisors have indicated that a single point of entry strategy may be a desirable strategy to resolve a large financial institution such as BNY Mellon under Title II in a manner that would, similar to our preferred strategy under our Title I resolution plan, impose losses on shareholders, unsecured debt holders and other unsecured creditors of the top-tier holding company (in our case, the Parent), while permitting the holding company's subsidiaries to continue to operate and remain solvent. Under such a strategy, assuming the Parent entered resolution proceedings and its subsidiaries remained solvent, losses at the subsidiary level could be transferred to the Parent and ultimately borne by the Parent's security holders (including holders of the Parent's unsecured debt securities), while third-party creditors of the Parent's subsidiaries would receive full recoveries on their claims. Accordingly, the Parent's security holders (including holders of unsecured debt securities and other unsecured creditors) could face losses in excess of what otherwise would have been the case.

Regulatory or enforcement actions or litigation could materially adversely affect our results of operations or harm our businesses or reputation.

Like many major financial institutions, we and our affiliates are the subject of inquiries, investigations, lawsuits and proceedings by counterparties, clients, other third parties and regulatory and other governmental agencies in the U.S. and abroad, as well as the Department of Justice (the "DOJ") and state attorneys general. See "Legal proceedings" in Note 20 of the Notes to Consolidated Financial Statements for a discussion of material legal and regulatory proceedings in which we are involved. The number of these investigations and proceedings, as well as the amount of penalties and fines sought, has remained elevated for many firms in the financial services industry, including us. We may become subject to heightened regulatory scrutiny, inquiries or investigations, and potentially client-related inquiries or claims, relating to broad, industry-wide concerns that could lead to increased expenses or reputational damage. The current trend of large settlements by financial institutions with governmental entities may adversely affect the outcomes for other financial institutions in similar actions, especially where governmental officials have announced that the large settlements will be used as the basis or a template for other settlements. Separately, policy makers in the European Union continue to focus on protection of client assets.

In addition, the DOJ currently has a policy of requiring companies to provide investigators with all relevant facts relating to the individuals responsible for the alleged misconduct in order to qualify for any cooperation credit in civil and criminal investigations of corporate wrongdoing, which may result in our incurring increased fines and penalties if the DOJ determines that we have not provided sufficient information about applicable individuals in connection with an investigation, as well as increased costs in responding to DOJ investigations. It is possible that other governmental authorities will adopt similar policies.

The complexity of the federal and state regulatory and enforcement regimes in the U.S., coupled with the global scope of our operations and the increased aggressiveness of the regulatory environment worldwide, also means that a single event may give rise to a large number of overlapping investigations and regulatory proceedings, either by multiple federal and state agencies in the U.S. or by multiple regulators and other governmental entities in different jurisdictions. Responding to inquiries, investigations, lawsuits and proceedings, regardless of the ultimate outcome of the matter, is time-consuming and expensive and can divert the attention of our senior management from our business. The outcome of such proceedings may be difficult to predict or estimate until late in the proceedings, which may last a number of years.

Certain of our subsidiaries are subject to periodic examination, special inquiries and potential proceedings by regulatory authorities. If compliance failures or other violations are found during an examination, inquiry or proceeding, a regulatory agency could initiate actions and impose sanctions for violations, including, for example, regulatory agreements, cease and desist orders, civil monetary penalties or termination of a license and could lead to litigation by investors or clients, any of which could cause our earnings to decline.

Our businesses involve the risk that clients or others may sue us, claiming that we or third parties for whom they say we are responsible have failed to perform under a contract or otherwise failed to carry out a duty perceived to be owed to them, including perceived fiduciary or contractual duties. This risk may be heightened during periods when credit, equity or other financial markets are deteriorating in value or are particularly volatile, or when clients or investors are experiencing losses. As a publicly held company, we are also subject to the risk of claims under the federal securities laws. Volatility in our stock price increases this risk.

Actions brought against us may result in lawsuits, enforcement actions, injunctions, settlements, damages, fines or penalties, which could have a material adverse effect on our financial condition or results of operations or require changes to our business. Claims for significant monetary damages are asserted in many of these legal actions, while claims for disgorgement, penalties and/or other remedial sanctions may be sought in regulatory matters. Although we establish accruals for our litigation and regulatory matters in accordance with applicable accounting guidance when those matters proceed to a stage where they present loss contingencies that are both probable and reasonably estimable, nonetheless there may be a possible material exposure to loss in excess of any amounts accrued, or in excess of any loss contingencies disclosed as reasonably possible. Such loss contingencies may not be probable and reasonably estimable until the proceedings have progressed significantly, which could take several years and occur close to resolution of the matter.

Each of the risks outlined above could result in increased regulatory supervision and affect our ability to attract and retain customers or maintain access to the capital markets.

Our businesses may be negatively affected by adverse events, publicity, government scrutiny or other reputational harm.

We are subject to reputational, legal and regulatory risk in the ordinary course of our business. The public perception of financial institutions remains negative. Harm to our reputation can result from numerous sources, including adverse publicity arising from events occurring at BNY Mellon or in the financial markets, our perceived failure to comply with legal and regulatory requirements, the purported actions of our employees, alleged financial reporting irregularities involving ourselves or other large and well-known companies and perceived conflicts of interest. Our reputation could also be harmed by the failure of an affiliate, joint venture or a vendor or other third party with which we do business to comply with laws or regulations. Damage to our reputation could affect the confidence of clients, rating agencies, regulators, employees, stockholders and other stakeholders and could in turn have an impact on our business and results of operations.

Additionally, governmental scrutiny from regulators, legislative bodies and law enforcement agencies with respect to financial services companies has remained at elevated levels. Press coverage and other public statements that assert some form of wrongdoing (including, in some cases, press coverage and public statements that do not directly involve BNY Mellon) often result in some type of investigation or in lawsuits. Certain enforcement authorities have recently required admissions of wrongdoing, and in some cases, criminal pleas, as part of the resolution of matters brought by them against financial institutions. Any such resolution of a matter involving BNY Mellon could lead to increased exposure to civil litigation, could adversely affect our reputation and ability to do business in certain products and in certain jurisdictions and could have other negative effects.

A failure to deliver appropriate standards of service and quality by either us or our vendors, or a failure to appropriately describe our products and services can result in customer dissatisfaction, lost revenue, higher operating costs, heightened regulatory scrutiny and litigation. Should any of these or other events or factors that can undermine our reputation occur, there is no assurance that the additional costs and expenses that we may need to incur to address the issues giving rise to the reputational harm would not adversely affect our earnings and results of operations.

Acts of terrorism, natural disasters, pandemics, global conflicts and other geopolitical events may have a negative impact on our business and operations.

In conducting our business and maintaining and supporting our global operations, which includes vendors and other third parties, we are subject to risks of loss from the outbreak of hostilities, acts of terrorism, natural disasters, pandemics, global conflicts or other similar catastrophic events that could have a negative impact on our business and operations. We may also be impacted by unfavorable political, economic, legal or other developments, including but not limited to social or political instability, changes in governmental policies or policies of central banks, sanctions, expropriation, nationalization, confiscation of assets, price, capital and exchange controls, and changes in laws and regulations.

While we have business continuity and disaster recovery plans in place, such events could still damage our facilities, disrupt or delay normal business operations (including communications and technology), result in harm or cause travel limitations on our employees, with a similar impact on our clients, suppliers and counterparties. Catastrophic events could also negatively impact the purchase of our products and services if those events result in reduced capital markets activity, lower asset price levels, or disruptions in general economic activity, or in financial market settlement functions, which could negatively impact our business and results of operation. In addition, war, terror attacks, political unrest, global conflicts, efforts to combat terrorism and other potential military activities and outbreaks of hostilities may lead to an increase in delinquencies, bankruptcies or defaults that could result in our experiencing higher levels of non-performing assets, net charge-offs and provisions for credit losses, negatively impacting our business and operations.

Market Risk

We are dependent on fee-based business for a substantial majority of our revenue and our fee-based revenues could be adversely affected by slowing in market activity, weak financial markets, underperformance and/or negative trends in savings rates or in investment preferences.

Our principal operational focus is on fee-based business, which is distinct from commercial banking institutions that earn most of their revenues from loans and other traditional interest-generating products and services. In 2017, approximately 78% of our total revenue was fee-based. Our fee-based businesses include investment management and performance fees, custody, corporate trust, depositary receipts, clearing, collateral management and treasury services, which are highly competitive businesses.

Fees for many of our products and services are based on the volume of transactions processed, the market value of assets managed and administered, securities lending volume and spreads, and fees for other services rendered. Corporate actions, cross-border investing, global mergers and acquisitions activity, new debt and equity issuances, and secondary trading volumes all affect the level of our revenues. If the volumes of these activities decrease due to weak financial markets or otherwise, our revenues will also decrease, which would negatively impact our results of operations.

Poor investment returns in our investment management business, due to either weak market conditions or underperformance (relative to our competitors or to benchmarks) by funds or accounts that we manage or investment products that we design or sell, could result in reduced market values of portfolios that we manage and/or administer and may affect our ability to retain existing assets and to attract new clients or additional assets from existing clients. Market and regulatory trends have resulted in increased demand for lower fee asset management products, and for performance-based fees. Significant declines in the volume of capital markets activity would reduce the number of transactions we process and the amount of securities we lend and therefore would also have an adverse effect on our results of operations.

Our business generally benefits when individuals invest their savings in mutual funds and other collective funds, unit investment trusts or exchange-traded funds, or contribute more to defined contribution plans. The current shift to lower fee investment products has adversely impacted our fees. If our investment management revenues decline, we could have a decline in the fair value in our Asset Management reporting unit, one of the two reporting units in our Investment Management segment. If the fair value of the Asset Management reporting unit declines below its carrying value, we would be required to take an impairment charge.

Weakness and volatility in financial markets and the economy generally may materially adversely affect our business, results of operations and financial condition.

As a financial institution, our Investment Management, Depositary Receipts and Markets, including Securities Lending, businesses, are particularly sensitive to economic and market conditions, including in the capital and credit markets. When these markets are volatile or disruptive, we could experience a decline in our marked-to-market assets, including in our securities portfolio and our equity investments, including seed capital. Our results of operations may be materially affected by conditions in the financial markets and the economy generally, both in the U.S. and elsewhere around the world. A variety of factors impact global economies and financial markets, including interest rates and their associated yield curves, commodity pricing, such as a continued weakness in oil prices when compared to historic levels, certain market and political instabilities, volatile debt and equity market values, the strength of the U.S. dollar, high unemployment and governmental budget deficits (including, in the U.S., at the federal, state and municipal level), contagion risk from possible default by other countries on sovereign debt, declining business and consumer confidence and the risk of increased inflation. Any resulting economic pressure on consumers and lack of confidence in the financial markets may adversely affect certain portions of our business, financial condition and results of operations. In particular, we face the following risks in connection with these factors, some of which are discussed at greater length in separate risk factors:

- Geopolitical tension and economic instability in countries around the world can at times increase the demand for low-risk investments, particularly in U.S. Treasuries and the dollar. A "flight to safety" has historically increased BNY Mellon's balance sheet, which has negatively impacted, and could continue to negatively impact, our leverage-based regulatory capital measures. A sustained "flight to safety" has historically triggered a decline in trading, capital markets and cross-border activity. Declining volumes in these activities would likely decrease our revenue, which would negatively impact our results of operations, financial condition and, if sustained in the long term, our business.

- The fees earned by our Investment Management business are higher as assets under management and/or investment performance increase. Those fees are also impacted by the composition of the assets under management, with higher fees for some asset categories as compared to others. Uncertain and volatile capital markets could result in reductions in assets under management because of investors' decisions to withdraw assets or from simple declines in the value of assets under management as markets decline. At Dec. 31, 2017, we estimate that a 5% change in global equity markets, spread evenly throughout the year, would impact fee revenue by less than 1% and diluted earnings per common share by $0.03 to $0.05 .

- Market conditions resulting in lower transaction volumes could have an adverse effect on the revenues and profitability of certain of our businesses such as clearing, settlement, payments and trading.

- Uncertain and volatile capital markets, particularly declines, could reduce the value of our investments in securities, including pension and other post-retirement plan assets.

- Derivative instruments we hold to hedge and manage exposure to market risks including interest rate risk, equity price risk, foreign currency risk and credit risk associated with our products and businesses might not perform as intended or expected, resulting in higher realized losses and unforeseen stresses on liquidity. Our derivative-based hedging strategies also rely on the performance of counterparties to such derivatives. These counterparties may fail to perform for various reasons resulting in losses on under-collateralized positions.

- Continuing relative weakness in oil prices, or a decline, may continue to negatively impact capital markets and may impact the ability of certain of our clients, including oil and gas exploration and production companies and sovereign funds in oil-exporting countries, to continue using our services or repay outstanding loans. Increased defaults among oil and gas exploration and production companies may also negatively impact the high-yield market and our high-yield funds.

- Market volatility could produce downward pressure on our stock price and credit availability without regard to our underlying financial strength.

- The process we use to estimate our projected credit losses and to ascertain the fair value of securities held by us is subject to uncertainty in that it requires use of statistical models and difficult, subjective and complex judgments, including forecasts of economic conditions and how these conditions might impair the ability of our borrowers and others to meet their obligations. In uncertain and volatile capital markets, our ability to estimate our projected credit losses may be impaired, which could adversely affect our overall profitability and results of operations.

For a discussion of our management of market risk, see "Risk Management – Market risk."

The United Kingdom's referendum decision to leave the EU has had and may continue to have negative effects on global economic conditions, global financial markets, and our business and results of operations.

In 2016, the UK voted to leave the EU in a nation-wide referendum. This has created an uncertain political and economic environment in the UK, and may create such environments in other EU member states. Political and economic uncertainty has in the past led to, and the outcome of the referendum and the withdrawal of the UK from the EU could lead to, declines in market liquidity and activity levels, volatile market conditions, a contraction of available credit, lower or negative interest rates, weaker economic growth and reduced business confidence.

Following the referendum and the commencement of the exit negotiations between the UK and the EU, the long-term nature of the UK's relationship with the EU remains unclear, and there is considerable uncertainty as to when the framework for any such relationship governing both the access of the UK to EU markets and vice versa will be determined and implemented. As a result, we, including our European affiliates, may face additional operational, regulatory and compliance costs. In addition, the regulatory, tax and supervisory regimes applicable to our European operations are expected to change; however, the nature and timing of such changes are uncertain and cannot be predicted. Certain of our European operations are conducted through subsidiaries located in the UK and other EU member states. If our UK subsidiaries are not able to retain their EU financial services "passport," or an equivalent version of access to enable cross-border services throughout the EU single market without needing to obtain local authorizations then we may incur costs to move operations and, potentially, personnel from our UK operations to our operations in other EU member states. The outcome of the UK's decision to exit the EU has also created uncertainty with regard to divergent regulatory standards, which may affect the operational capabilities such as the transfer of data between the UK and EU after the UK leaves the EU.

Following the referendum, volatility in the exchange rate for the British pound has increased. A decrease in the British pound compared to the U.S. dollar would negatively impact our Investment Management business, which typically has more non-U.S. dollar denominated revenues than expenses. Volatility in exchange rates may also have a negative effect on our Investment Services business, which typically has more non-U.S. dollar denominated expenses than revenues.

The effects of the result of the referendum and the UK's decision to exit the EU, including those described above, could adversely affect our business, results of operations and financial condition.

Changes in interest rates and yield curves could have a material adverse effect on our profitability.

We earn revenue, known as "net interest revenue," on the difference between the interest income earned on our interest-earning assets, such as the loans we make and the securities we hold in our investment securities portfolio, and the interest expense incurred on our interest-bearing liabilities, such as deposits and borrowed money. Our net interest margin, which is the result of dividing net interest revenue by average interest-earning assets, and our cash flows, are sensitive to changes in the spread between short-term and long-term interest rates (the "yield curve"). Our net interest margin tends to increase in a positive yield curve environment and decrease when the yield curve flattens or inverts. Notwithstanding the recent increase in the Fed Funds target rate to between 1.25% and 1.50%, we remain in a historically low-rate environment. A continuing low rate environment combined with a flattening of the yield curve may adversely impact our revenue and results of operations by compressing our net interest spreads, particularly if we are unable to replace our higher-yielding maturing assets with assets of comparable yields, which will constrain our ability to achieve desired net interest margins.

The 75 basis point rise in rates in the past year, or future rate rises, could trigger one or more of the following, which could adversely impact our business, results of operations and financial condition, including:

- less liquidity in bonds and fixed-income funds in the case of a sharp rise in interest rates resulting in lower performance, yield and fees;

- increased number of delinquencies, bankruptcies or defaults and more nonperforming assets and net charge-offs, as borrowers may have more difficulty making higher interest payments ;

- difficulty in modeling predicted deposit levels and depositor behavior, which could impact our ability to manage liquidity and capital;

- decreases in deposit levels and higher redemptions from our fixed-income funds or separate accounts, as clients move funds into investments with higher rates of return;

- decreases in stable deposit levels, which may result in further pressure on our LCR measure;

- a decline in our risk-based capital ratios;

- reduction in accumulated other comprehensive income ("OCI") in our shareholders' equity and therefore our tangible common equity due to the impact of rising long term rates on our available-for-sale securities in our investment portfolio; or

- higher funding costs.

A more detailed discussion of the interest rate and market risks we face is contained in "Risk Management."

We may experience write-downs of securities that we own and other losses related to volatile and illiquid market conditions, reducing our earnings and impacting our financial condition.

We maintain an investment securities portfolio of various holdings, types and maturities. At Dec. 31, 2017, these securities were primarily classified as available-for-sale, which are recorded on our balance sheet at fair value with unrealized gains or losses reported as a component of accumulated other comprehensive income, net of tax. The securities in our held-to-maturity portfolio, recorded on our balance sheet at amortized cost, were $40.8 billion and comprised approximately 34% of our investment securities portfolio at Dec. 31, 2017. To the extent unhedged, the accounting and regulatory treatment of our investment securities portfolio in an available-for-sale accounting environment may have more volatility than a more traditional held-for-investment loan portfolio, or a securities portfolio comprised exclusively of U.S. Treasury securities.

Our investment securities portfolio represents a greater proportion of our consolidated total assets (approximately 32% at Dec. 31, 2017), and our loans represent a smaller proportion of our consolidated total assets (approximately 17% at Dec. 31, 2017), in comparison to many other major U.S. financial institutions due to our custody and trust bank business model. As such, our capital levels and results of operations and financial condition are materially exposed to the risks associated with our investment portfolio.

If any of our available-for-sale securities experience an other-than-temporary impairment, it would negatively impact our earnings. If our held-to-maturity securities experience a loss in fair value, it would negatively impact the fair value of our securities portfolio, although it would not impact our earnings unless a credit event occurred. Many of these securities experienced significant liquidity, valuation and credit quality deterioration during the 2008 financial crisis and could experience a similar deterioration in another financial crisis. U.S. state and municipal bonds have been experiencing stress in light of fiscal concerns.

Under the U.S. capital rules, after-tax changes in the fair value of available-for-sale investment securities are included in CET1 capital. Since loans held for investment, or securities in a held-to-maturity accounting classification, are not subject to a fair-value accounting framework, changes in the fair value of these instruments (other than incurred credit losses) are not similarly included in the determination of CET1 capital. As a result, we may experience increased variability in our CET1 capital relative to those other major financial institutions who maintain a lower proportion of their consolidated total assets in an available-for-sale accounting classification.

Generally, the fair value of available-for-sale securities in the securities portfolio is determined based upon market values available from third-party sources. During periods of market disruption, it may be difficult to value certain of our investment securities if trading becomes less frequent and/or market data becomes less observable. As a result, valuations may include inputs and assumptions that are less observable or require greater estimation and judgment as well as valuation methods which are more complex. These values may not be ultimately realizable in a market transaction, and such values may change very rapidly as market conditions change and valuation assumptions are modified. Decreases in value may have a material adverse effect on our results of operations or financial condition. If any of our securities suffer credit losses, as we experienced with some of our investments in 2009, we may recognize the credit losses as an other-than-temporary impairment which could impact our revenue in the quarter in which we recognize the losses. The decision on whether to record an other-than-temporary impairment or writedown is determined in part by management's assessment of the financial condition and prospects of a particular issuer, projections of future cash flows and recoverability of the particular security. Management's conclusions on such assessments are highly judgmental and include assumptions and projections of future cash flows which may ultimately prove to be incorrect as assumptions, facts and circumstances change. On the other hand, securities held in a held-to-maturity accounting environment are limited in the actions we can take absent a significant deterioration in the issuer's creditworthiness. Therefore, we may be constrained in our ability to liquidate a held-to-maturity security that is deteriorating in value, which would negatively impact the fair value of our securities portfolio. If our determinations change about our intention or ability to not sell securities that have experienced a reduction in fair value below their amortized cost, we could be required to recognize an other-than-temporary loss in earnings for the entire difference between fair value and amortized cost.

For information regarding our investment securities portfolio, refer to "Consolidated balance sheet review - Investment securities" and for information regarding the sensitivity of and risks associated with the market value of portfolio investments and interest rates, refer to "Critical accounting estimates - Fair value - Securities" and "- Other-than-temporary impairment."

Ongoing concerns about the financial stability of certain countries, new barriers to global trade or a breakup of the EU or Eurozone could have a material adverse effect on our business and results of operations.

There remain ongoing concerns about the financial stability of certain countries, including the possibility of sovereign debt defaults and bank failures. This has led to, and could continue to lead to, declines in market liquidity, a contraction of available credit, and diminished economic growth and business confidence in those countries, with potential collateral consequences to other countries as well.

Recent political developments in the U.S. and Europe may result in new barriers to global business, including a partial or full break-up of the EU, Eurozone or the North American Free-Trade Agreement ("NAFTA"), which could lead to redenomination of certain obligations of obligors in exiting countries. Any such exit and redenomination would cause significant uncertainty with respect to outstanding obligations of counterparties and debtors in any exiting country, whether sovereign or otherwise, and could lead to complex and lengthy disputes and litigation. Barriers to global business, or even the anticipation of such barriers, could create market uncertainty and stress, which could cause, among other things, severe disruption to equity markets, significant increases in bond yields generally, potential failure or default of financial institutions, including those of systemic importance, a significant decrease in global liquidity, a freeze-up of global credit markets and a potential worldwide recession. Any of these events could have a material adverse impact on our business or results of operations.

We are primarily exposed to disruptions in global markets in a number of principal areas - on our balance sheet, in certain interest-bearing deposits with banks, loans, trading assets and investment securities, as well as fee revenue. Additionally, market disruptions could lead to, among other things, a negative impact on our fee revenue and a "flight to safety," triggering increased client deposits and altering the size and composition of our balance sheet, which could adversely impact our leverage-based regulatory capital measures. For additional information regarding our exposure to certain countries, please see "International operations - Country risk exposure."

Our international clients accounted for 36% of our revenue in 2017. Given the scope of our global operations, clients and counterparties, persistent disruptions in the global financial markets, or the attempt of a country to abandon the euro or persistent weakness in a leading global currency could have a material adverse impact on our business or results of operations.

Our businesses and operations from time to time enter into new regions. Various countries have experienced severe economic and financial disruptions, including significant devaluations of their currencies, defaults or threatened defaults on sovereign debt, capital and currency exchange controls, and low or negative growth rates in their economies. Crime, corruption, war or military actions, and a lack of an established legal and regulatory framework are additional challenges. Revenue from international operations and trading in non-U.S. securities and other obligations may be subject to negative fluctuations as a result. The possible effects of any of these conditions may adversely affect our business and results of operations.

Our FX revenue may be adversely affected by decreases in market volatility and the cross-border investment activity of our clients.

Our foreign exchange trading generates revenues which are primarily driven by the volume of client transactions and the spread realized on these transactions, both of which are impacted by market volatility and the impact of foreign exchange hedging activities. Our clients' cross-border investing activity could decrease in reaction to economic and political uncertainties, including changes in laws or regulations governing cross-border transactions, such as currency controls or tariffs. Uncertainties resulting from terrorist attacks and/or military actions may also negatively affect cross-border investments activity, which could negatively impact revenue.

Volumes and/or spreads in some of our products tend to benefit from currency volatility and are likely to decrease during times of lower currency volatility. Our revenues also depend on our ability to manage the risk associated with the currency transactions we execute and program pricing.

Furthermore, a shift by custody clients from the standing instruction programs to other trading options combined with competitive market pressures on the foreign exchange business may negatively impact our FX revenue. Continued growth of electronic FX trading capabilities is resulting in a shift of volume to lower margin channels.

Credit and Liquidity Risk

The failure or perceived weakness of any of our significant counterparties, many of whom are major financial institutions and sovereign entities, and our assumption of credit and counterparty risk, could expose us to loss and adversely affect our business.

We have exposure to clients and counterparties in many different industries, particularly financial institutions, as a result of trading, clearing and financing, providing custody services, securities lending services or other relationships. We routinely execute transactions with global clients and counterparties in the financial industry as well as sovereigns and other governmental or quasi-governmental entities. Our direct exposure consists of the extension of secured and unsecured credit to clients and use of our balance sheet. In addition to traditional credit activities, we also extend intraday credit in order to facilitate our various processing, settlement and intermediation activities. Our ability to engage in funding or other transactions could be adversely affected by the actions and commercial soundness of other financial institutions or sovereign entities, as defaults or non-performance (or even uncertainty concerning such default or non-performance) by one or more financial institutions, or the financial services industry generally, have in the past led to market-wide liquidity problems and could lead to losses or defaults by us or by other institutions (including our counterparties and/or clients) in the future. The consolidation and failures of financial institutions during the last financial crisis increased the concentration of our client and counterparty risk.

As a result of our membership in several industry clearing or settlement exchanges and central counterparty clearinghouses, we may be required to guarantee obligations and liabilities or provide financial support in the event that other members do not honor their obligations or default. These obligations may be limited to members that dealt with the defaulting member or to the amount (or a multiple of the amount) of our contribution to a clearing or settlement exchange guarantee fund, or, in a few cases, the obligation may be unlimited.

The degree of client demand for short-term credit also tends to increase during periods of market turbulence, exposing us to further credit-related risks. For example, investors in mutual funds for which we act as custodian may engage in significant redemption activity due to adverse market or economic conditions. We may then extend intraday credit to our fund clients in order to facilitate their ability to pay such redemptions. This may negatively impact our leverage-based capital ratios, and in times of sustained market volatility, may result in significant leverage-based ratio declines.

When we provide credit to clients in connection with providing cash management, clearing, custodial and other services, we are exposed to potential loss if the client experiences credit difficulties. We are also generally not able to net exposures across affiliated clients or counterparties and may not be able to net exposures to the same legal entity across multiple products. In addition, we may incur a loss in relation to one entity or product even though our exposure to one of the entities' affiliates is over-collateralized. Moreover, not all of our client or counterparty exposure is secured.

In our agency securities lending program, we act as lender's agent on behalf of our clients, the lenders of securities, in securities lending transactions with our clients' counterparties (including broker-dealers), acting as borrowers, wherein securities are lent by our clients and the securities loans are collateralized by cash or securities posted by such counterparties. Typically, in the case of cash collateral, our clients authorize us as their agent to invest the cash collateral in approved investments pursuant to each client's investment guidelines and instructions. Such approved investments may include reverse repurchase transactions with repo counterparties. In many cases, in the securities loans we enter into on behalf of our clients, we contractually agree to replace the client's loaned securities that the borrower failed to return due to certain defaults by the borrower, mainly the borrower's insolvency. Therefore, in situations where the market value of the loaned securities that the borrower failed to return to a client (which loaned securities we are obligated to replace and return to the client) exceeds the amount of proceeds resulting from the liquidation of the client's approved investments and cash and non-cash collateral of such client, we may be responsible for the shortfall amount necessary to purchase any replacement securities. In addition, in certain cases, we may also undertake the risk of loss in certain circumstances related to approved investments that are reverse repurchase transactions as described above. In these two scenarios, we, rather than our clients, are exposed to the risks of the defaulting counterparty in the securities lending transactions and, where applicable, in the reverse repurchase transactions. For further discussion on our securities lending indemnifications, see "Commitments and contingent liabilities - Off-balance sheet arrangements" in Note 20 of the Notes to Consolidated Financial Statements.

From time to time, we assume concentrated credit risk at the individual obligor, counterparty or group level, potentially exposing us to a single market or political event or a correlated set of events. For example, we may be exposed to defaults by companies located in countries with deteriorating economic conditions or by companies in certain industries. Such concentrations may be material. Our material counterparty exposures change daily, and the counterparties or groups of related counterparties to which our risk exposure is material also vary during any reported period; however, our largest exposures tend to be to other financial institutions, clearing organizations, and governmental entities, both inside and outside the U.S. Concentration of counterparty exposure presents significant risks to us and to our clients because the failure or perceived weakness of our counterparties (or in some cases of our clients' counterparties) has the potential to expose us to risk of financial loss. Changes in market perception of the financial strength of particular financial institutions or sovereign issuers can occur rapidly, are often based on a variety of factors and are difficult to predict.

Although our overall business is subject to these interdependencies, several of our businesses are particularly sensitive to them, including our currency and other trading activities, our securities lending and securities finance businesses and our investment management business. If we experience any of the losses described above, it may materially and adversely affect our results of operations.

We are also subject to the risk that our rights against third parties may not be enforceable in all circumstances. In addition, deterioration in the credit quality of third parties whose securities or obligations we hold, including a deterioration in the value of collateral posted by third parties to secure their obligations to us under derivatives contracts and other agreements, could result in losses and/or adversely affect our ability to rehypothecate or otherwise use those securities or obligations for liquidity purposes. Disputes with clients and counterparties as to the valuation of collateral can significantly increase in times of market stress and illiquidity. In addition, disruptions in the liquidity or transparency of the financial markets may result in our inability to sell, syndicate or realize the value of our positions, thereby leading to increased concentrations. An inability to reduce our positions may not only increase the market and credit risks associated with such positions, but may also increase the level of RWA on our balance sheet, thereby increasing our capital requirements and funding costs, all of which could adversely affect the operations and profitability of our businesses.

Under evolving regulatory restrictions on credit exposure, which include a broadening of the measure of credit exposure, we may be required to limit our exposures to specific obligors or groups, including financial institutions, to levels that we may currently exceed. These credit exposure restrictions under such evolving regulations may adversely affect our businesses and may require us to modify our operating models or the policies and practices we use.

Our business, financial condition and results of operations could be adversely affected if we do not effectively manage our liquidity.

BNY Mellon's operating model and overall strategy rely heavily on our access to financial market utilities and global capital markets. Without such access, it would be difficult to process payments and settle and clear transactions on behalf of our clients. Deterioration in our liquidity position, whether actual or perceived, can impact our market access by affecting participants' willingness to transact with us. Changes to our liquidity can be caused by various factors, such as funding mismatches, market constraints disabling asset to cash conversion, inability to issue debt, run-off of core deposits, and contingent liquidity events such as additional collateral posting. Changes in economic conditions or exposure to credit, market, operational, legal and reputational risks can also affect our liquidity.

Our business is dependent in part on our ability to meet our cash and collateral obligations at a reasonable cost for both expected and unexpected cash flows. We also must manage liquidity risks on an intraday basis, in a manner designed to ensure that we can access required funds during the business day to make payments or settle immediate obligations, often in real time. We receive client deposits through a variety of investment management and investment servicing businesses and we rely on those deposits as a low-cost and stable source of funding. Our ability to continue to receive those deposits, and other short-term funding sources, is subject to variability based on a number of factors, including volume and volatility in the global securities markets, the relative interest rates that we are prepared to pay for those deposits, and the perception of the safety of those deposits or other short-term obligations relative to alternative short-term investments available to our clients. We could lose deposits if we suffer a significant decline in the level of our business activity, our credit ratings are materially downgraded, interest rates rise, or we are subject to significant negative press or significant regulatory action or litigation, among other reasons. If we were to lose a significant amount of deposits we may need to replace such funding with more expensive funding and/or reduce assets, which would reduce our net interest revenue.

In addition, the Parent's access to the debt capital markets is a significant source of liquidity. Events or circumstances often outside of our control, such as market disruptions, government fiscal and monetary policies, or loss of confidence by securities purchasers or counterparties in us or in the funds markets, could limit our access to capital markets, increase our cost of borrowing, adversely affect our liquidity, or impair our ability to execute our business plan. In addition, clearing organizations, regulators, clients and financial institutions with which we interact may exercise the right to require additional collateral based on market perceptions or market conditions, which could further impair our access to and cost of funding. Market perception of sovereign default risks can also lead to inefficient money markets and capital markets, which could further impact BNY Mellon's funding availability and cost. Conversely, if we experience excess liquidity inflows, it could increase interest expense, limit our financial flexibility, and increase the size of our total assets in a manner that could have a negative impact on our capital ratios.

Adopted and proposed regulations have been designed to address certain liquidity risks of large banking organizations, including BNY Mellon. The LCR and the Dodd-Frank Act's enhanced prudential standards impose liquidity management requirements on us that require us to increase our holdings of highly liquid, but potentially lower-yielding assets. These regulations also impact our ability to hold certain deposits deemed to pose a higher risk of runoff in the event of financial distress.

Under the U.S. capital rules, the size of the capital surcharge that applies to U.S. G-SIBs is based in part on a U.S. G-SIB's reliance on short-term wholesale funding, including certain types of deposit funding, which may increase the cost of such funding. Furthermore, certain non-U.S. authorities, including the European Commission, have proposed legislation or regulations requiring large banks to incorporate a separate subsidiary in countries in which they operate, and to maintain independent capital and liquidity at foreign subsidiaries. If adopted, these requirements could hinder our ability to efficiently manage our funding and liquidity in a centralized manner. There can be no assurances that these measures will be successful in limiting BNY Mellon's liquidity risk.

In addition, our cost of funding could be affected by actions that we may take in order to satisfy applicable LCR and NSFR requirements, to lower our G-SIB surcharge, to satisfy the amount of eligible long-term debt outstanding under the TLAC Rule, to address obligations under our resolution plan or to satisfy regulatory requirements in non-U.S. jurisdictions relating to the pre-positioning of liquidity in certain subsidiaries.

If we are unable to raise funds using the methods described above, we would likely need to finance or liquidate unencumbered assets, such as our central bank deposits and bank placements, or securities in our investment portfolio to meet funding needs. We may be unable to sell some of our assets, or we may have to sell assets at a discount from market value, either of which could adversely affect our financial condition and results of operations. Further, our ability to sell assets may be impaired if other market participants are seeking to sell similar assets at the same time, which could occur in a liquidity or other market crisis. Additionally, if we experience cash flow mismatches, deposit run-off or market constraints resulting from our inability to convert assets to cash or access capital markets, our liquidity could be severely impacted. During periods of market uncertainty, our level of client deposits has in recent years tended to increase; however, because these deposits have high potential run-off rates, we have historically deposited these so-called excess deposits with central banks and in other highly liquid and low-yielding instruments.

If we are unable to continue to fund our assets through deposits or access capital markets on favorable terms or if we suffer an increase in our borrowing costs or otherwise fail to manage our liquidity effectively, our liquidity, net interest margin, financial results and condition may be materially adversely affected. In certain cases, this could require us to raise additional capital through the issuance of preferred or common stock, which could dilute the ownership of existing stockholders, and/or reduce our common stock dividend to preserve capital.

For a further discussion of our liquidity, see "Liquidity and dividends."

Any material reduction in our credit ratings or the credit ratings of our principal bank subsidiaries, The Bank of New York Mellon or BNY Mellon, N.A., could increase the cost of funding and borrowing to us and our rated subsidiaries and have a material adverse effect on our results of operations and financial condition and on the value of the securities we issue.

Our debt and preferred stock and the debt and deposits of our principal bank subsidiaries, The Bank of New York Mellon and BNY Mellon, N.A., are currently rated investment grade by the major rating agencies. These rating agencies regularly evaluate us and our rated subsidiaries and their outlook on us and our rated subsidiaries. Their credit ratings are based on a number of factors, including our financial strength, performance, prospects and operations as well as factors not entirely within our control, including conditions affecting the financial services industry generally as well as the U.S. government. Rating agencies employ different models and formulas to assess the financial strength of a rated company, and from time to time rating agencies have, in their discretion, altered these models. Changes to rating agency models, general economic conditions, or other circumstances outside of our control could impact a rating agency's judgment of the rating or outlook it assigns us or our rated subsidiaries.

In view of the difficulties experienced during the 2008 financial crisis by many financial institutions, we believe that the rating agencies have heightened their level of scrutiny, increased the frequency and scope of their credit reviews, have requested additional information, and have adjusted upward the requirements employed in their models for maintenance of rating levels. There can be no assurance that we or our rated subsidiaries will maintain our respective credit ratings or outlook on our securities.

A material reduction in our credit ratings or the credit ratings of our rated subsidiaries could have a material adverse effect on our access to credit markets, the related cost of funding and borrowing, our credit spreads, our liquidity and on certain trading revenues, particularly in those businesses where counterparty creditworthiness is critical. In addition, in connection with certain over-the-counter derivatives contracts and other trading agreements, counterparties may require us or our rated subsidiaries to provide additional collateral or to terminate these contracts and agreements and collateral financing arrangements in the event of a credit ratings downgrade below certain ratings levels. The requirement to provide additional collateral or terminate these contracts and agreements could impair our liquidity by requiring us to find other sources of financing or to make significant cash payments or securities movements. A downgrade by any one rating agency, depending on the agency's relative ratings of the firm at the time of the downgrade, may have an impact comparable to the impact of a downgrade by all rating agencies. If a rating agency downgrade were to occur during broader market instability, our options for responding to events may be more limited and more expensive. An increase in the costs of our funding and borrowing, or an impairment of our liquidity, could have a material adverse effect on our results of operations and financial condition. A material reduction in our credit ratings also could decrease the number of investors and counterparties willing or permitted to do business with or lend to us and adversely affect the value of the securities we have issued or may issue in the future.

We cannot predict what actions rating agencies may take, or what actions we may elect or be required to take in response thereto, which may adversely affect us. Our and our subsidiaries' ratings could be downgraded at any time and without any notice by any of the rating agencies. For further discussion on the impact of a credit rating downgrade, see "Disclosure of contingent features in OTC derivative instruments" in Note 21 of the Notes to Consolidated Financial Statements.

We could incur losses if our allowance for credit losses, including loan and lending related commitments reserves, is inadequate.

When we loan money, commit to loan money or provide credit or enter into another contract with a counterparty, we incur credit risk, or the risk of loss if our borrowers do not repay their loans or our counterparties fail to perform according to the terms of their agreements. Our revenues and profitability are adversely affected when our borrowers default, in whole or in part, on their loan obligations to us or when there is a significant deterioration in the credit quality of our loan portfolio. We reserve for potential future credit losses by recording a provision for credit losses through a charge to earnings. The allowance for loan losses and allowance for lending-related commitments represents management's estimate of probable losses inherent in our credit portfolio. We use a quantitative methodology and qualitative framework for determining the allowance for loan losses and the allowance for lending-related commitments. Within this qualitative framework, management applies judgment when assessing internal risk factors and environmental factors to compute an additional allowance for each component of the loan portfolio. As is the case with any such judgments, we could fail to identify these factors or accurately estimate their impact. We cannot provide any assurance as to whether charge-offs related to our credit exposure may occur in the future. Current and future market and economic developments may increase default and delinquency rates and negatively impact the quality of our credit portfolio, which may impact our charge-offs. Although our current estimates contemplate current conditions and how we expect them to change in the future, it is reasonably possible that actual conditions could be worse than anticipated in those estimates, which could materially affect our results of operations and financial condition. See "Critical accounting estimates."

Strategic Risk

New lines of business, new products and services or transformational or strategic project initiatives may subject us to additional risks, and the failure to implement these initiatives could affect our results of operations.

From time to time, we may launch new lines of business, offer new products and services within existing lines of business or undertake transformational or strategic projects. There are substantial risks and uncertainties associated with these efforts. We invest significant time and resources in developing and marketing new lines of business, products and services and executing on our transformational and strategic initiatives. For example, we have devoted considerable resources to developing new technology solutions for our clients. If these technology solutions are not successful, it could adversely impact our reputation, business and results of operations.

Regulatory requirements can affect whether initiatives are able to be brought to market in a manner that is timely and attractive to our customers. Initial timetables for the development and introduction of new lines of business or new products or services and price and profitability targets may not be met. Furthermore, our revenues and costs may fluctuate because new businesses or products and services generally require startup costs while revenues may take time to develop, which may adversely impact our results of operations.

From time to time we undertake transformational or strategic project initiatives. Significant effort and resources are necessary to manage and oversee the successful completion of these initiatives. These initiatives often place significant demands on management and a limited number of employees with subject matter expertise and may involve significant costs to implement as well as increase operational risk as employees learn to process transactions under new systems. The failure to properly execute on these transformational or strategic initiatives could adversely impact our business, reputation and results of operations.

We are subject to competition in all aspects of our business, which could negatively affect our ability to maintain or increase our profitability.

Many businesses in which we operate are intensely competitive around the world. Competitors include other banks, trading firms, broker-dealers, investment banks, asset managers, insurance companies, financial technology firms and a variety of other financial services and advisory companies whose products and services span the markets in which we operate. We compete on the basis of a number of factors, including transaction execution, capital or access to capital, products and services, innovation, reputation, lending limits, rates and price. Larger and more geographically diverse companies, and financial technology firms that are not subject to the same level of regulation, may be able to offer financial products and services at more competitive prices than we are able to offer. Pricing pressures, as a result of the willingness of competitors to offer comparable or improved products or services at a lower price, may result in a reduction in the price we can charge for our products and services, which could, and in some cases has, negatively affected our ability to maintain or increase our profitability. Low economic growth may result in clients exiting markets, which could lead to a loss of business for us.

In addition, technological advances have made it possible for other types of non-depository institutions, such as financial technology firms, outsourcing companies and data processing companies, to offer a variety of products and services competitive with certain areas of our business.

Markets, and the manner in which our clients interact and transact within markets, can evolve quickly, particularly if new or disruptive technologies are introduced. Our failure to either anticipate, or participate in, the transformational change within a given market could result in potential negative financial impact. Competitors may develop technological advances that could negatively impact our transaction execution or the pricing of our clearing, settlement, payments and trading activities. Increased competition in any of these areas may require us to make additional capital investments in our businesses in order to remain competitive. For example, along with other financial institutions, we are researching ways to adapt robotics and distributed ledger technology to bank services. If we are not able to adapt these technologies as successfully as our peers, we may become less competitive. In addition, even if successful from a competitive standpoint, the use and implementation of new and emerging technologies may increase the risk that we experience cybersecurity or other information technology events.

Furthermore, recently implemented and proposed regulations may impact our ability to conduct certain of our businesses in a cost-effective manner or at all. The more restrictive laws and regulations applicable to the largest U.S. financial services institutions, including the U.S. capital rules, can put us at a competitive disadvantage relative to both our non-U.S. competitors and certain U.S. competitors. See “Supervision and Regulation.”

Our business may be adversely affected if we are unable to attract and retain employees.

Our success depends, in large part, on our ability to attract new employees, retain and motivate our existing employees, and continue to compensate our employees competitively amid heightened regulatory restrictions. Competition for the most skilled employees in most activities in which we engage can be intense, and we may not be able to recruit and retain key personnel.

We rely on certain employees with subject matter expertise to assist in the implementation of important initiatives. As technology and risk management increase in focus in the financial industry, competition for technologists and risk personnel has intensified, which could constrain our ability to execute on certain of our strategic initiatives.

Our ability to attract and retain key executives and other employees may be negatively affected by recent legislation and other existing restrictions applicable to incentive and other compensation programs, including new limits on our ability to deduct for federal income tax purposes compensation in excess of $1 million paid to certain current and former executives, as well as deferral, clawback requirements and other limits on incentive compensation. Some of these restrictions may not apply to some of our competitors and to other institutions with which we compete for talent.

The loss of employees’ skills, knowledge of the market, industry experience, and the cost of finding replacements may hurt our business. If we are unable to continue to attract and retain highly qualified employees, our performance, including our competitive position, could be adversely affected.

Our strategic transactions present risks and uncertainties and could have an adverse effect on our business, results of operations and financial condition.

From time to time, to achieve our strategic objectives, we have acquired, disposed of, or invested in (including through joint venture relationships) companies and businesses, and may do so in the future. Our ability to pursue or complete strategic transactions is in certain instances subject to regulatory approval and we cannot be certain when or if, or on what terms and conditions, any required regulatory approvals would be granted. Moreover, to the extent we pursue a strategic transaction, there can be no guarantee that the transaction will close when anticipated, or at all. If a strategic transaction does not close, or if the strategic transaction fails to maximize shareholder value or required regulatory approval is not obtained, it could have an adverse effect on our business, results of operations and financial condition.

Each acquisition poses integration challenges, including successfully retaining and assimilating clients and key employees, capitalizing on certain revenue synergies and integrating the acquired company’s culture, control functions, systems and technology. In some cases, acquisitions involve entry into new businesses or new geographic or other markets, and these situations also present risks and uncertainties in instances where we may be inexperienced in these new areas. We may be required to spend a significant amount of time and resources to integrate these acquisitions. The anticipated integration benefits may take longer to achieve than projected and the time and cost needed to consolidate control functions, platforms and systems may significantly exceed our estimates. If we fail to successfully integrate strategic acquisitions, including doing so in a timely and cost-effective manner, we may not realize the expected benefits, which could have an adverse impact on our business, financial condition and results of operations. In addition, we may incur expenses, costs, losses, penalties, taxes and other liabilities related to the conduct of the acquired businesses prior to the date of our ownership (including in connection with the defense and/or settlement of legal and regulatory claims, investigations and proceedings) which may not be recoverable through indemnification or otherwise. If the purchase price we pay in an acquisition exceeds the fair value of assets acquired less the liabilities we assume, then we may need to recognize goodwill on our consolidated balance sheet. Goodwill is an intangible asset that is not eligible for inclusion in regulatory capital under applicable requirements. Further, if the value of the acquisition declines, we may be required to record an impairment charge.

Each disposition also poses challenges, including separating the disposed businesses, products and systems in a way that is cost-effective and is not disruptive to us or our customers. In addition, the inherent uncertainty involved in the process of evaluating, negotiating or executing a potential sale of one of our companies or businesses may cause the loss of key clients, employees and business partners which could have an adverse impact on our business, financial condition and results of operations.

Joint ventures and non-controlling investments contain potentially increased financial, legal, reputational, operational, regulatory and/or compliance risks. Notwithstanding our controls and risk management framework, which are designed to manage these risks, we may be dependent on joint venture partners, controlling shareholders or management who may have business interests, strategies or goals that are inconsistent with ours. Business decisions or other actions or omissions of the joint venture partner, controlling shareholders or management may adversely affect the value of our investment, impacting our results of operations, result in litigation or regulatory action against us and otherwise damage our reputation and brand.

Other Risks

Tax law changes, including the recent enactment of the Tax Act, or challenges to our tax positions with respect to historical transactions may adversely affect our net income, effective tax rate and our overall results of operations and financial condition.

The recent enactment of the Tax Act has reduced our statutory tax rate and implemented a partial territorial rather than worldwide tax system, among other changes. We are currently analyzing the Tax Act and will continue to analyze the Tax Act as further guidance is issued to determine the law’s impact to us. Our assessments of the impact of the Tax Act, including the impact in the fourth quarter of 2017 of a $427 million increase in net income and $551 million decrease in the numerator of our CET1, Tier 1 and Total capital ratios, is based on certain assumptions and our interpretation of the Tax Act may change, possibly materially, as we refine our analysis and as further information becomes available. As a result, our business or net income may be materially negatively impacted. In addition, future tax laws or the expiration of or changes in existing tax laws, or the interpretation of those laws worldwide, could also have a material impact on our business or net income. Our actions taken in response to, or reliance upon, such changes in the tax laws may impact our tax position in a manner that may result in lower earnings.

In the course of our business, we receive inquiries and challenges from both U.S. and non-U.S. tax authorities on the amount of taxes we owe. If we are not successful in defending these inquiries and challenges, we may be required to adjust the timing or amount of taxable income or deductions or the allocation of income among tax jurisdictions, all of which can require a greater provision for taxes or otherwise negatively affect earnings. Probabilities and outcomes are reviewed as events unfold, and adjustments to the reserves are made when necessary, but the reserves may prove inadequate because we cannot necessarily accurately predict the outcome of any challenge, settlement or litigation or the extent to which it will negatively affect us or our business. See Note 10 of the Notes to Consolidated Financial Statements for further information.

Our ability to return capital to shareholders is subject to the discretion of our board of directors and may be limited by U.S. banking laws and regulations, including those governing capital and the approval of our capital plan, applicable provisions of Delaware law or our failure to pay full and timely dividends on our preferred stock.

Holders of our common and preferred stock are only entitled to receive such dividends or other distributions of capital as our Board of Directors may declare out of funds legally available for such payments. Although we have historically declared cash dividends on our common and preferred stock, we are not required to do so. In addition to the Board of Directors’ approval, our ability to take certain actions, including our ability to make certain acquisitions, declare dividends or repurchase our common stock, is dependent on, among other things, Federal Reserve non-objection under the annual regulatory review of the results of the CCAR process and the supervisory stress tests required under the Dodd-Frank Act. These evaluations, in turn, are dependent on, among other things, our successful demonstration that we can maintain capital levels above regulatory minimums in the event of a stressed market environment, as well as the Federal Reserve's qualitative assessment of the robustness of our capital adequacy process and the assumptions and analysis underlying the capital plan. There can be no assurance that the Federal Reserve will not object to our future capital plans or that we will perform adequately on our supervisory stress tests. If the Federal Reserve objects to our proposed capital actions or we underperform on our stress tests, we may be required to revise our stress-testing or capital management approaches, resubmit our capital plan or postpone, or cancel or alter our planned capital actions, and we would not be permitted to make any capital distributions other than those to which the Federal Reserve has indicated in writing its non-objection. In addition, if there have been or will be changes in our risk profile (including a material change in business strategy or risk exposure), financial condition or corporate structure, we may be required to resubmit our capital plan to the Federal Reserve.

Our ability to accurately predict or explain the outcome of the CCAR process is influenced by evolving supervisory criteria. The Federal Reserve's annual assessment of our capital adequacy and planning process involves not only a quantitative assessment through the Federal Reserve's proprietary stress test models but also a qualitative assessment. The qualitative assessment involves a number of factors and is expected to continue to evolve on an ongoing basis as a result of the Federal Reserve's horizontal review of capital plan submissions. Similarly, the Federal Reserve may, as part of its stated goal to continually evolve its annual stress testing requirements, adjust several parameters of the annual stress testing process, including the severity of the stress test scenario and the addition of components deemed important by the Federal Reserve (e.g., a counterparty failure). Further, because the Federal Reserve's proprietary stress test models and qualitative assessment may differ from the modeling techniques and capital planning practices employed by us, it is foreseeable that our stress test results (using our own models, estimation methodologies and processes) may not be consistent with those disclosed by the Federal Reserve. In addition, the Federal Reserve may require, at some point in the future, that some or all of the G-SIB surcharge or other buffers be integrated into its post-stress test minimum capital requirements.

The Federal Reserve's instructions for the 2018 CCAR provide that, for large BHCs like BNY Mellon, common stock dividend payout ratios exceeding 30% of after-tax net income available to common shareholders under certain baseline scenarios will receive particularly close scrutiny. A failure to increase dividends along with our competitors, or any reduction of, or elimination of, our common stock dividend would likely adversely affect the market price of our common stock, impact our return on equity and market perceptions of BNY Mellon.

Our ability to declare or pay dividends on, or purchase, redeem or otherwise acquire, shares of our common stock or any of our shares that rank junior to preferred stock as to the payment of dividends and/or the distribution of any assets on any liquidation, dissolution or winding-up of BNY Mellon will be prohibited, subject to certain exceptions, in the event that we do not declare and pay in full dividends for the then-current dividend period of our Series A preferred stock or the last preceding dividend period of our Series C, Series D, Series E or Series F preferred stock.

In addition, regulatory capital rules that are or will be applicable to us including the U.S. capital rules risk-based capital requirements, the SLR, enhanced SLR, the TLAC Rule and the U.S. G-SIB Rule may limit or otherwise restrict how we utilize our capital, including common stock dividends and stock repurchases, and may require us to increase or alter the mix of our outstanding regulatory capital instruments.

Any requirement to increase our regulatory capital ratios or alter the composition of our capital could require us to liquidate assets or otherwise change our business and/or investment plans, which may negatively affect our financial results. Further, any requirement to maintain higher levels of capital may constrain our ability to return capital to shareholders either in the form of common stock dividends or stock repurchases.

Changes in the method pursuant to which the LIBOR and other benchmark rates are determined could adversely impact our business and results of operations.

Our floating-rate funding, certain hedging transactions and certain of the products that we offer, such as floating-rate loans, financing transactions and derivatives in connection with our trading activities, determine the applicable interest rate or payment amount by reference to a benchmark rate, such as the London Interbank Offered Rate ("LIBOR"), or to an index, currency, basket or other financial metric. In the event any such benchmark or other referenced financial metric is significantly changed or discontinued (for example, if LIBOR is discontinued), there may be uncertainty as to the calculation of the applicable interest rate or payment amount, depending on the terms of the governing instrument. In addition, such changes could affect our exposure to fluctuations in interest rates (for example, if the discontinuation of LIBOR adversely affects the availability or cost of floating-rate funding), result in our hedges being ineffective or otherwise result in losses, additional costs or lower revenues.

The Parent is a non-operating holding company, and as a result, is dependent on dividends from its subsidiaries and extensions of credit from its IHC to meet its obligations, including with respect to its securities, and to provide funds for share repurchases and payment of dividends to its stockholders.

The Parent is a non-operating holding company, whose principal assets and sources of income are its principal U.S. bank subsidiaries - The Bank of New York Mellon and BNY Mellon, N.A. - and its other subsidiaries, including the IHC. The Parent is a legal entity separate and distinct from the IHC, as well as its banks and other subsidiaries. Therefore, the Parent primarily relies on dividends, interest, distributions, and other payments from its subsidiaries, including extensions of credit from the IHC, to meet its obligations, including its obligations with respect to its securities, and to provide funds for share repurchases and payment of common and preferred dividends to its stockholders, to the extent declared by the Board of Directors.

There are various limitations on the extent to which our bank and other subsidiaries can finance or otherwise supply funds to the Parent (by dividend or otherwise) and certain of our affiliates. Each of these restrictions can reduce the amount of funds available to meet the Parent's obligations. Many of our subsidiaries, including our bank subsidiaries, are subject to laws and regulations that restrict dividend payments or authorize regulatory bodies to block or reduce the flow of funds from those subsidiaries to the Parent or other subsidiaries. In addition, our bank subsidiaries would not be permitted to distribute a dividend if doing so would constitute an unsafe and unsound practice or if the payment would reduce their capital to an inadequate level. Our subsidiaries may also choose to restrict dividend payments to the Parent in order increase their own capital or liquidity levels. For example, The Bank of New York Mellon, our primary subsidiary, did not distribute regular quarterly dividends to the Parent from the fourth quarter of 2015 to the second quarter of 2017 in order to build capital in advance of the implementation of the SLR as a binding measure. Our bank subsidiaries are also subject to restrictions on their ability to lend to or transact with non-bank affiliates, minimum regulatory capital and liquidity requirements, and restrictions on their ability to use funds deposited with them in bank or brokerage accounts to fund their businesses. See "Supervision and Regulation" and "Liquidity and dividends" and Note 17 of the Notes to Consolidated Financial Statements. Further, we evaluate and manage liquidity on a legal entity basis, which may place legal and other limitations on our ability to utilize liquidity from one legal entity to satisfy the liquidity requirements of another, including the Parent.

There are also limitations specific to the IHC's ability to make distributions or extend credit to the Parent. The IHC is not permitted to pay dividends to the Parent if certain key capital, liquidity and operational risk indicators are breached, and if the resolution of the Parent is imminent, the committed lines of credit provided by the IHC to the Parent will automatically terminate, with all outstanding amounts becoming due. See "If our resolution plan is determined not to be credible or not to facilitate an orderly resolution under the U.S. Bankruptcy Code, our business, reputation, results of operations and financial condition could be materially negatively impacted. The application of our Title I preferred resolution strategy or resolution under the Title II orderly liquidation authority could adversely affect our liquidity and financial condition and our security holders."

Because the Parent is a holding company, its rights and the rights of its creditors, including the holders of its securities, to a share of the assets of any subsidiary upon the liquidation or recapitalization of the subsidiary will be subject to the prior claims of the subsidiary's creditors (including, in the case of our banking subsidiaries, their depositors) except to the extent that the Parent may itself be a creditor with recognized claims against the subsidiary. The rights of holders of securities issued by the Parent to benefit from those distributions will also be junior to those prior claims. Consequently, securities issued by the Parent will be effectively subordinated to all existing and future liabilities of our subsidiaries.

Changes in accounting standards governing the preparation of our financial statements and future events could have a material impact on our reported financial condition, results of operations, cash flows and other financial data.

From time to time, the FASB, the SEC and bank regulators change the financial accounting and reporting standards governing the preparation of our financial statements or the interpretation of those standards. These changes are difficult to predict and can materially impact how we record and report our financial condition, results of operations, cash flows and other financial data. In some cases, we may be required to apply a new or revised standard retroactively or to apply an existing standard differently, also retroactively, in each case potentially resulting in the restatement of our prior period financial statements and our related disclosures.

Additionally, our accounting policies and methods are fundamental to how we record and report our financial condition and results of operations. The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates based upon assumptions about future economic and market conditions which affect reported amounts and related disclosures in our financial statements. Amounts subject to estimates are items such as the allowance for loan losses and lending-related commitments, the fair value of financial instruments and derivatives, other-than-temporary impairment, goodwill and other intangibles and pension accounting. Among other effects, such changes in estimates could result in future impairments of investment securities, goodwill and intangible assets and establishment of allowances for loan losses and lending-related commitments as well as changes in pension and post-retirement expense. If subsequent events occur that are materially different than the assumptions and estimates we used, our reported financial condition, results of operation and cash flows may be materially negatively impacted. See "Recent Accounting Developments" for a discussion of recent developments to our accounting standards.

Recently issued accounting standards

The following ASUs issued by the Financial Accounting Standards Board ("FASB") have not yet been adopted.

ASU 2017-12, Derivatives and Hedging: Targeted Improvements to Accounting for Hedging Activities

In August 2017, the FASB issued an ASU, *Derivatives and Hedging: Targeted Improvements to Accounting for Hedging Activities* . The objective of this ASU is to improve the financial reporting of hedging relationships to better portray the economic results of an entity's risk management activities and to simplify the application of hedge accounting guidance.

The most significant impact of the new guidance to the Company relates to the new accounting alternatives for fair value hedges of interest rate risk, specifically, the ability to hedge only the benchmark component of the contractual cash flows and partial-term hedging. The guidance also changed presentation and disclosure requirements and made changes to how the shortcut method is applied, which may result in the Company using that method going forward for certain hedging relationships.

This ASU is effective for the first quarter of 2019, with early adoption permitted. Certain transition elections are available including the ability to reclassify certain debt securities from held-to-maturity to available-for-sale with any unrealized gain or loss at the transfer date being recorded in OCI and adjusting certain existing hedge relationships consistent with the newly simplified guidance. BNY Mellon is in the process of adopting this standard in the first quarter of 2018, effective as of Jan. 1, 2018. As part of that adoption we reclassified approximately $1.1 billion of certain debt securities from held-to-maturity to available-for-sale and are assessing the impacts of other transition elections.

ASU 2017-07, Compensation-Retirement Benefits - Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost

In March 2017, the FASB issued an ASU, *Compensation-Retirement Benefits - Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost* . The ASU requires the disaggregation of the service cost component from the other components of the net benefit cost in the income statement. The ASU also permits only the service cost component of net benefit cost to be eligible for capitalization. BNY Mellon adopted this ASU in the first quarter of 2018, and will apply the guidance retrospectively for the presentation of the service cost component and the other components in the income statement, and prospectively for the capitalization of the service cost component in assets. For information on the components of our pension and post-retirement health plan costs, see Note 16 of the Notes to Consolidated Financial Statements. Based on our current estimates for the net credit for pension and other post-retirement costs in 2018, the adoption of this standard will result in an increase to staff expense and a reduction in other expense, as compared to the currently reported amounts for 2017.

ASU 2016-18, Statement of Cash Flows – Restricted Cash

In November 2016, the FASB issued an ASU, *Statement of Cash Flows – Restricted Cash* . This ASU provides guidance on the presentation of restricted cash or restricted cash equivalents in the statement of cash flows. BNY Mellon adopted this ASU in the first quarter of 2018 and will include restricted cash (which totaled $ 2 billion as of Dec. 31, 2017) with cash and due from banks when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows.

ASU 2016-15, Statement of Cash Flows – Classification of Certain Cash Receipts and Cash Payments

In August 2016, the FASB issued an ASU, *Statement of Cash Flows – Classification of Certain Cash Receipts and Cash Payments* . This ASU provides guidance on eight specific cash flow presentation issues. BNY Mellon adopted this guidance in the first quarter of 2018. BNY Mellon does not expect the adoption of this ASU will have a material impact on the statement of cash flows.

ASU 2014-09, Revenue from Contracts with Customers

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers* . This ASU, as amended, provides guidance on the recognition of revenue related to the transfer of promised goods or services to customers, guidance on accounting for certain contract costs and additional disclosure requirements about revenue and contract costs. The standard supersedes most existing revenue recognition guidance and is effective for the first quarter of 2018 using either the retrospective or cumulative effect transition method upon adoption.

The Company has completed its evaluation of the potential impact of this guidance on our accounting policies, and based on that evaluation, the timing of most of our revenue recognition will remain the same and the impacts will not be material. The impacts primarily relate to deferring and amortizing certain sales commission costs related to obtaining customer contracts and the timing of recognizing the contra revenue related to certain payments made to customers. The Company adopted the guidance on Jan. 1, 2018 using the cumulative effect transition method, which resulted in an approximate $55 million after-tax reduction to retained earnings. The Company is currently developing the disclosures required about revenue and contract costs and finalizing changes to internal control.

ASU 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities

In January 2016, the FASB issued ASU 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities* . The ASU requires investments in equity securities that do not result in consolidation and are not accounted for under the equity method to be measured at fair value with changes in the fair value recognized through net income, unless one of two available exceptions apply. The first exception, a scope exception, allows Federal Reserve Bank stock, FHLB stock and other exchange memberships held by broker dealers to remain accounted for at cost, less impairment. The second exception, a practicability exception, will be available for equity investments that do not have readily determinable fair values and do not qualify for the practical expedient to estimate fair value under ASC 820, *Fair Value Measurement* . To the extent the practicability exception applies, such investments will be accounted for at cost adjusted for impairment, if any, plus or minus changes from observable price changes.

The amendments also require an entity to present separately in OCI the portion of the total change in the fair value of a liability resulting from the entity's "own credit risk" when the entity has elected to measure the liability at fair value.

The amendments also eliminate the requirement to disclose the methods and significant assumptions used to estimate the fair values of financial instruments measured at amortized cost that are on the balance sheet.

The Company adopted this guidance in the first quarter of 2018 using the cumulative effect method of adoption, with a de minimis impact to retained earnings. As part of the adoption, we reclassified money market fund investments of approximately $1.0 billion to trading assets, primarily from available-for-sale securities. BNY Mellon does not expect the adoption of this ASU to have a material ongoing impact to the financial statements.

Staff Accounting Bulletin No. 118

In December 2017, the SEC staff issued Staff Accounting Bulletin No. 118 ("SAB 118") to address the application of U.S. GAAP in situations when a registrant does not have the necessary information available, prepared, or analyzed in reasonable detail to complete the accounting for tax effects of the U.S. tax legislation. SAB 118 allows the recording of a provisional estimate to reflect the income tax impact of the U.S. tax legislation and provides a measurement period up to one year from the enactment date to complete the accounting under ASC 740, *Income Taxes* . The Company recorded a $710 million provisional tax benefit reflecting the impact of the U.S. tax legislation. For information on income taxes, see Note 10 of the Notes to Consolidated Financial Statements.

ASU 2016-02, Leases

In February 2016, the FASB issued ASU 2016-02, *Leases* . The primary objective of this ASU is to increase transparency and comparability by recognizing lease assets and liabilities on the balance sheet and expand related disclosures. ASU 2016-02 requires a "right-of-use" asset and a payment obligation liability on the balance sheet for most leases and subleases. Additionally, depending on the lease classification under the standard, it may result in different expense recognition patterns and classification than under existing accounting principles. For leases classified as finance leases, it will result in higher expense recognition in the earlier periods and lower expense in the later periods of the lease.

The standard is effective for the first quarter of 2019, with early adoption permitted. Additionally, the standard allows for various optional practical expedients to assist with the implementation and reporting requirements. We are currently evaluating the potential impact of the leasing standard on our consolidated financial statements and evaluating the practical expedients that may be elected. Upon adoption, the implementation of the leasing standard is expected to result in an immaterial increase in both assets and liabilities.

ASU 2018-02, Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income

In February 2018, the FASB issued an ASU, *Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income.* This ASU permits a reclassification from accumulated other comprehensive income to retained earnings for the tax effects of items within accumulated other comprehensive income that do not reflect the lower statutory tax rate which was enacted by the U.S. tax legislation. This ASU is effective for the first quarter of 2019, with early adoption permitted. The guidance in this ASU will be applied retrospectively to the period in which the effect of the change in the U.S. federal corporate income tax rate in the Tax Cuts and Jobs Act is recognized. We are assessing the impacts of the new standard, but would not expect this ASU to have a material impact on BNY Mellon.

ASU 2016-13, Financial Instruments – Credit Losses

In June 2016, the FASB issued an ASU, *Financial Instruments – Credit Losses* . This ASU introduces a new current expected credit losses model, which will apply to financial assets subject to credit losses and measured at amortized cost, including held-to-maturity securities and certain off-balance sheet credit exposures. The guidance will also change current practice for the impairment model for available-for-sale debt securities. The available-for-sale debt securities model will require the use of an allowance to record estimated credit losses and subsequent recoveries. This ASU is effective for the first quarter of 2020. Earlier application is permitted beginning with the first quarter of 2019. BNY Mellon has begun its implementation efforts and is currently identifying key interpretive issues, and will assess existing credit loss forecasting models and processes against the new guidance to determine what modifications may be required. The extent of the impact to our financial statements upon adoption depends on several factors including the remaining expected life of financial instruments at the time of adoption, the establishment of an allowance for expected credit loss on held-to-maturity securities, and the macroeconomic conditions and forecasts that exist at that date.

We are prepared for events, such as information security incidents, technology disruptions, acts of terrorism, natural disasters, pandemics or global conflicts, that could damage our physical facilities, cause delay or disruptions to operational functions, including telecommunications networks, or impair our employees, clients, vendors and counterparties. Key elements of our business continuity strategies are extensive planning and testing, and diversity of business operations, data centers and telecommunications infrastructure.

We have established multiple geographically diverse locations for our funds transfer and broker-dealer services operational units, which provide redundant functionality to facilitate uninterrupted operations.

Our securities clearing, commercial paper, mutual fund accounting and custody, securities lending, master trust, Unit Investment Trust, corporate trust, item processing, wealth management and treasury units have common functionality in multiple sites designed to facilitate continuance of operations or rapid recovery. In addition, we have recovery seats for approximately 12,700 employees on a global basis of which over 6,300 are proprietary.

We continue to enhance geographic diversity for business operations by moving additional personnel to growth centers outside of existing major urban centers. We replicate 100% of our critical production computer data to recovery data centers.

We have an active telecommunications diversity program. All major buildings are provisioned with connectivity from diverse telecommunication carriers. Additionally, we design our critical connectivity to take advantage of separate carrier entrances built into our facilities. This maximizes resiliency by allowing for end to end separation of primary and alternative communications.

In 2003, the Federal Reserve, OCC and SEC jointly published the Interagency Paper, “Sound Practices to Strengthen the Resilience of the U.S. Financial System” (“Sound Practices Paper”). The purpose of the document was to define the guidelines for the financial services industry and other interested parties regarding “best practices” related to business continuity planning. Under these guidelines, we are a key clearing and settlement organization required to meet a higher standard for business continuity.

We believe we meet substantially all of the requirements of the Sound Practices Paper. As a core clearing and settlement organization, we believe that we are at the forefront of the industry in improving business continuity practices.

We are committed to our service providers meeting the same standards that we do for business continuity, as well as for information security, financial stability, personnel practices and other measures. To that end, we have a Third Party Governance Program in place to review new and existing service providers to confirm their compliance with our standards.

We developed comprehensive plans, including increased remote working by staff for one or more periods lasting several weeks, to prepare for events that would cause significantly reduced staffing levels.

Although we are committed to observing best practices as well as meeting regulatory requirements, geopolitical uncertainties and other external factors will continue to create risk that cannot always be identified and anticipated.

Due to the nature of our business and our robust business recovery systems and processes, we are not materially impacted by climate change, nor do we expect material impacts in the near term. We have, and will continue to, implement processes and capital projects to deal with the risks of the changing climate. The Company has invested in the development of products and services that support the markets related to climate change.

Supplemental information - Explanation of GAAP and Non-GAAP financial measures

BNY Mellon has included in this Annual Report certain Non-GAAP financial measures based on estimated fully phased-in CET1 and other risk-based capital ratios, the estimated fully phased-in SLR and tangible common shareholders' equity. BNY Mellon believes that the CET1 and other risk-based capital ratios, on a fully phased-in basis and the SLR, on a fully phased-in basis, are measures of capital strength that provide additional useful information to investors, supplementing the capital ratios which are, or were, required by regulatory authorities. Tangible common shareholders' equity, which excludes goodwill and intangible assets, net of deferred tax liabilities, includes changes in investment securities valuations which are reflected in total shareholders' equity. BNY Mellon believes that the return on tangible common equity measure is an additional useful measure for investors because it presents a measure of those assets that can generate income. BNY Mellon has provided a measure of tangible book value per common share, which it believes provides additional useful information as to the level of tangible assets in relation to shares of common stock outstanding.

BNY Mellon has presented revenue measures, which exclude the effect of noncontrolling interests related to consolidated investment management funds and gains on the sales of our equity investment in Wing Hang and our One Wall Street building; and expense measures, which exclude amortization of intangible assets, M&I, litigation and restructuring charges, the (recovery) impairment charge related to Sentinel and the charge related to investment management funds, net of incentives. Operating margin and return on equity measures, which exclude some or all of these items, are also presented. Return on equity measures also exclude the tax benefit primarily related to a tax carryback claim and the net charge related to the disallowance of certain foreign tax credits. Operating margin measures may also exclude the provision for credit losses and distribution and servicing expense. BNY Mellon believes that these measures are useful to investors because they permit a focus on period-to-period comparisons, which relate to the ability of BNY Mellon to enhance revenues and limit expenses in circumstances where such matters are within BNY Mellon's control. M&I expenses primarily relate to acquisitions and generally continue for approximately three years after the transaction. Litigation charges represent accruals for loss contingencies that are both probable and reasonably estimable, but exclude standard business-related legal fees. Restructuring charges relate to our streamlining actions and Operational Excellence Initiatives. Excluding the charges mentioned above permits investors to view expenses on a basis consistent with how management views the business.

The presentation of income from consolidated investment management funds, net of net income attributable to noncontrolling interests related to the consolidation of certain investment management funds, permits investors to view revenue on a basis consistent with how management views the business. BNY Mellon believes that these presentations, as a supplement to GAAP information, give investors a clearer picture of the results of its primary businesses.

The presentation of revenue growth on a constant currency basis permits investors to assess the significance of changes in foreign currency exchange rates. Growth rates on a constant currency basis were determined by applying the current period foreign currency exchange rates to the prior period revenue. BNY Mellon believes that this presentation, as a supplement to GAAP information, gives investors a clearer picture of the related revenue results without the variability caused by fluctuations in foreign currency exchange rates.

Each of these measures as described above is used by management to monitor financial performance, both on a company-wide and on a business-level basis.

The following table presents the reconciliation of the pre-tax operating margin ratio.

Pre-tax operating margin *(dollars in millions)*		**2017**		2016		2015		2014		2013
Income before income taxes – GAAP	$	**4,610**	$	4,725	$	4,235	$	3,563	$	3,777
Less: Net income attributable to noncontrolling interests of consolidated investment management funds		**33**		10		68		84		80
Gain on the sale of our equity investment in Wing Hang		**—**		—		—		490		—
Gain on the sale of our One Wall Street building		**—**		—		—		346		—
Add: Amortization of intangible assets		**209**		237		261		298		342
M&I, litigation and restructuring charges		**106**		49		85		1,130		70
(Recovery) impairment charge related to Sentinel		**—**		(13)		170		—		—
Charge related to investment management funds, net of incentives		**—**		—		—		104		12
Income before income taxes, as adjusted – Non-GAAP *(a)*	$	**4,892**	$	4,988	$	4,683	$	4,175	$	4,121
Fee and other revenue – GAAP	$	**12,165**	$	12,073	$	12,082	$	12,649	$	11,856
Income from consolidated investment management funds – GAAP		**70**		26		86		163		183
Net interest revenue – GAAP		**3,308**		3,138		3,026		2,880		3,009
Total revenue – GAAP		**15,543**		15,237		15,194		15,692		15,048
Less: Net income attributable to noncontrolling interests of consolidated investment management funds		**33**		10		68		84		80
Gain on the sale of our equity investment in Wing Hang		**—**		—		—		490		—
Gain on the sale of our One Wall Street building		**—**		—		—		346		—
Total revenue, as adjusted – Non-GAAP *(a)*	$	**15,510**	$	15,227	$	15,126	$	14,772	$	14,968
Pre-tax operating margin – GAAP *(b)*		**30%**	*(c)*	31%	*(c)*	28%	*(c)*	23%		25%
Adjusted pre-tax operating margin – Non-GAAP *(a)(b)*		**32%**	*(c)*	33%	*(c)*	31%	*(c)*	28%		28%

(a) Non-GAAP information for all periods presented excludes the net income attributable to noncontrolling interests of consolidated investment management funds, amortization of intangible assets and M&I, litigation and restructuring charges. Non-GAAP information for 2016 and 2015 also excludes the (recovery) impairment charge related to the Sentinel loan. Non-GAAP information for 2014 also excludes the gains on the sales of our equity investment in Wing Hang and our One Wall Street building. Non-GAAP information for 2014 and 2013 also excludes the charge related to investment management funds, net of incentives.
(b) Income before taxes divided by total revenue.
(c) Our GAAP earnings include tax-advantaged investments such as low income housing, renewable energy, corporate/bank-owned life insurance and tax-exempt securities. The benefits of these investments are primarily reflected in tax expense. If reported on a tax-equivalent basis, these investments would increase revenue and income before taxes by $375 million for 2017 , $317 million for 2016 and $ 242 million for 2015 and would increase our pre-tax operating margin by approximately 1.7 % for 2017 , 1.4 % for 2016 and 1.1 % for 2015 .

The following table presents the reconciliation of book value per common share.

Book value per common share		**Dec. 31,**							
(dollars in millions, unless otherwise noted)		**2017**		2016		2015		2014		2013
BNY Mellon shareholders' equity at year end – GAAP	$	**41,251**	$	38,811	$	38,037	$	37,441	$	37,497
Less: Preferred stock		**3,542**		3,542		2,552		1,562		1,562
BNY Mellon common shareholders' equity at year end – GAAP		**37,709**		35,269		35,485		35,879		35,935
Less: Goodwill		**17,564**		17,316		17,618		17,869		18,073
Intangible assets		**3,411**		3,598		3,842		4,127		4,452
Add: Deferred tax liability – tax deductible goodwill *(a)*		**1,034**		1,497		1,401		1,340		1,302
Deferred tax liability – intangible assets *(a)*		**718**		1,105		1,148		1,216		1,222
BNY Mellon tangible common shareholders' equity at year end – Non-GAAP	$	**18,486**	$	16,957	$	16,574	$	16,439	$	15,934
Year-end common shares outstanding *(in thousands)*		**1,013,442**		1,047,488		1,085,343		1,118,228		1,142,250
Book value per common share – GAAP	$	**37.21**	$	33.67	$	32.69	$	32.09	$	31.46
Tangible book value per common share – Non-GAAP	$	**18.24**	$	16.19	$	15.27	$	14.70	$	13.95

(a) Deferred tax liabilities are based on fully phased-in Basel III capital rules. Deferred tax liabilities at Dec. 31, 2017 have been remeasured at the lower statutory corporate tax rate.

The following table presents the reconciliation of the returns on common equity and tangible common equity.

Return on common equity and tangible common equity *(dollars in millions)*	**2017**	2016	2015	2014	2013
Net income applicable to common shareholders of The Bank of New York Mellon Corporation – GAAP	**$ 3,915**	$ 3,425	$ 3,053	$ 2,494	$ 2,040
Add: Amortization of intangible assets	**209**	237	261	298	342
Less: Tax impact of amortization of intangible assets	**72**	81	89	104	122
Adjusted net income applicable to common shareholders of The Bank of New York Mellon Corporation excluding amortization of intangible assets – Non-GAAP	**4,052**	3,581	3,225	2,688	2,260
Add: M&I, litigation and restructuring charges	**106**	49	85	1,130	70
(Recovery) impairment charge related to Sentinel	**—**	(13)	170		
Tax impact of gain on the sale of our equity investment in Wing Hang	**—**	—	—	175	
Tax impact of the gain on the sale of our One Wall Street building	**—**	—	—	142	
Charge related to investment management funds, net of incentives	**—**	—	—	104	12
Net charge related to the disallowance of certain foreign tax credits	**—**	—	—	—	593
Less: Tax impact of M&I, litigation and restructuring charges	**20**	16	29	270	25
Tax impact of (recovery) impairment charge related to Sentinel	**—**	(5)	64		
Gain on the sale of our equity investment in Wing Hang	**—**	—	—	490	
Gain on the sale of our One Wall Street building	**—**	—	—	346	
Tax impact of charge related to investment management funds, net of incentives	**—**	—	—	23	3
Benefit primarily related to a tax carryback claim	**—**	—	—	150	
Adjusted net income applicable to common shareholders of The Bank of New York Mellon Corporation, as adjusted – Non-GAAP *(a)*	**$ 4,138**	$ 3,606	$ 3,387	$ 2,960	$ 2,907
Average common shareholders' equity	**$ 36,145**	$ 35,504	$ 35,564	$ 36,618	$ 34,832
Less: Average goodwill	**17,441**	17,497	17,731	18,063	17,988
Average intangible assets	**3,508**	3,737	3,992	4,305	4,619
Add: Deferred tax liability – tax deductible goodwill *(b)*	**1,034**	1,497	1,401	1,340	1,302
Deferred tax liability – intangible assets *(b)*	**718**	1,105	1,148	1,216	1,222
Average tangible common shareholders' equity – Non-GAAP	**$ 16,948**	$ 16,872	$ 16,390	$ 16,806	$ 14,749
Return on common shareholders' equity – GAAP	**10.8%**	9.6%	8.6%	6.8%	5.9%
Adjusted return on common shareholders' equity – Non-GAAP *(a)*	**11.4%**	10.2%	9.5%	8.1%	8.3%
Return on tangible common shareholders' equity – Non-GAAP	**23.9%**	21.2%	19.7%	16.0%	15.3%
Adjusted return on tangible common shareholders' equity – Non-GAAP *(a)*	**24.4%**	21.4%	20.7%	17.6%	19.7%

(a) Non-GAAP information for all periods presented excludes the amortization of intangible assets and M&I, litigation a
also excludes the (recovery) impairment charge related to the Sentinel loan. Non-GAAP information for 2014 also ex
and our One Wall Street building, the charge related to investment management funds, net of incentives, and the bene
for 2013 also excludes the charge related to investment management funds, net of incentives and the net charge relate

(b) Deferred tax liabilities are based on fully phased-in Basel III capital rules. Deferred tax liabilities at Dec. 31, 2017

The following table presents income from consolidated investment management funds, net of noncontrolling interests.

Income from consolidated investment management funds, net of noncontrolling interests *(in millions)*	**2017**	2016	2015	2014	2013
Income from consolidated investment management funds	**$ 70**	$ 26	$ 86	$ 163	$ 183
Less: Net income attributable to noncontrolling interests of consolidated investment management funds	**33**	10	68	84	80
Income from consolidated investment management funds, net of noncontrolling interests	**$ 37**	$ 16	$ 18	$ 79	$ 103

The following table presents the impact of changes in foreign currency exchange rates on our consolidated investment management and performance fees.

Investment management and performance fees – Consolidated *(dollars in millions)*	**2017**	2016	**2017 vs. 2016**
Investment management and performance fees – GAAP	**$ 3,584**	$ 3,350	**7%**
Impact of changes in foreign currency exchange rates	**—**	(29)	
Investment management and performance fees, as adjusted – Non-GAAP	**$ 3,584**	$ 3,321	**8%**

The following table presents the revenue line items in the Investment Management business impacted by the consolidated investment management funds.

Income from consolidated investment management funds, net of noncontrolling interests - Investment Management business *(in millions)*	**2017**	2016	2015
Investment management fees	**$ 5**	$ 11	$ 15
Other (Investment income)	**32**	5	3
Income from consolidated investment management funds, net of noncontrolling interests	**$ 37**	$ 16	$ 18

The following table presents the impact of changes in foreign currency exchange rates on investment management fees reported in the Investment Management business.

Investment management fees - Investment Management business *(dollars in millions)*	**2017**	2016	**2017 vs. 2016**
Investment management fees – GAAP	**$ 3,428**	$ 3,232	**6%**
Impact of changes in foreign currency exchange rates	**—**	(28)	
Investment management fees, as adjusted – Non-GAAP	**$ 3,428**	$ 3,204	**7%**

The following table presents the reconciliation of the pre-tax operating margin for the Investment Management business.

Pre-tax operating margin - Investment Management business *(dollars in millions)*	**2017**	2016	2015
Income before income taxes – GAAP	**$ 1,141**	$ 967	$ 1,048
Add: Amortization of intangible assets	**60**	82	97
Provision for credit losses	**2**	6	(1)
Adjusted income before income taxes, excluding amortization of intangible assets and provision for credit losses – Non-GAAP	**$ 1,203**	$ 1,055	$ 1,144
Total revenue – GAAP	**$ 3,997**	$ 3,751	$ 3,906
Less: Distribution and servicing expense	**422**	404	378
Adjusted total revenue, net of distribution and servicing expense – Non-GAAP	**$ 3,575**	$ 3,347	$ 3,528
Pre-tax operating margin – GAAP *(a)*	**29%**	26%	27%
Adjusted pre-tax operating margin, excluding amortization of intangible assets, provision for credit losses and distribution and servicing expense – Non-GAAP *(a)*	**34%**	32%	32%

(a) Income before taxes divided by total revenue.

Rate/volume analysis

Rate/volume analysis *(a)*	**2017 over (under) 2016**			2016 over (under) 2015		
	Due to change in			Due to change in		
(dollar amounts in millions, presented on an FTE basis)	**Average balance**	**Average rate**	**Net change**	Average balance	Average rate	Net change
Interest revenue						
Interest-earning assets:						
Interest-bearing deposits with banks (primarily foreign banks)	**$ 1**	**$ 15**	**$ 16**	$ (34)	$ 34	$ —
Interest-bearing deposits with the Federal Reserve and other central banks	**(28)**	**149**	**121**	(5)	33	28
Federal funds sold and securities purchased under resale agreements	**14**	**176**	**190**	16	70	86
Margin loans	**(62)**	**140**	**78**	(19)	77	58
Non-margin loans:						
Domestic offices:						
Consumer	**33**	**6**	**39**	41	1	42
Commercial	**(17)**	**121**	**104**	40	31	71
Foreign offices	**(4)**	**65**	**61**	(10)	43	33
Total non-margin loans	**12**	**192**	**204**	71	75	146
Securities:						
U.S. government obligations	**9**	**38**	**47**	(13)	13	
U.S. government agency obligations	**71**	**138**	**209**	23	(4)	19
State and political subdivisions - tax exempt	**(15)**	**5**	**(10)**	(28)	10	(18)
Other securities:						
Domestic offices	**(62)**	**67**	**5**	(44)	(48)	(92)
Foreign offices	**(11)**	**(45)**	**(56)**	(18)	48	30
Total other securities	**(73)**	**22**	**(51)**	(62)	—	(62)
Trading securities (primarily domestic)	**(1)**	**—**	**(1)**	(12)	(3)	(15)
Total securities	**(9)**	**203**	**194**	(92)	16	(76)
Total interest revenue	**$ (72)**	**$ 875**	**$ 803**	$ (63)	$ 305	$ 242
Interest expense						
Interest-bearing liabilities:						
Interest-bearing deposits:						
Domestic offices:						
Money market rate accounts	**$ —**	**$ —**	**$ —**	$ —	$ (2)	$ (2)
Savings	**(1)**	**4**	**3**			
Demand deposits	**8**	**(1)**	**7**	—	1	1
Time deposits	**(8)**	**64**	**56**	—	12	12
Total domestic offices	**(1)**	**67**	**66**	—	11	11
Foreign offices:						
Banks	**—**	**50**	**50**	(2)	4	2
Government and official institutions	**—**	**9**	**9**	—	—	—
Other	**3**	**18**	**21**	—	(34)	(34)
Total foreign offices	**3**	**77**	**80**	(2)	(30)	(32)
Total interest-bearing deposits	**2**	**144**	**146**	(2)	(19)	(21)
Federal funds purchased and securities sold under repurchase agreements	**17**	**172**	**189**	—	42	42
Trading liabilities	**4**	**(3)**	**1**	1	(4)	(3)
Other borrowed funds:						
Domestic offices	**20**	**(3)**	**17**	(2)	2	
Foreign offices	**—**	**1**	**1**	1	(2)	(1)
Total other borrowed funds	**20**	**(2)**	**18**	(1)	—	(1)
Commercial paper	**8**	**16**	**24**	—	3	3
Payables to customers and broker-dealers	**2**	**50**	**52**	4	1	5

Long-term debt		**69**	**138**	**207**	32	80	112
Total interest expense	**$**	**122**	**$ 515**	**$ 637**	$ 34	$ 103	$ 137
Changes in net interest revenue	**$**	**(194)**	**$ 360**	**$ 166**	$ (97)	$ 202	$ 105

(a) Changes which are solely due to balance changes or rate changes are allocated to such categories on the basis of the respective percentage changes in average balances and average rates. Changes in interest revenue or interest expense arising from the combination of rate and volume variances are allocated proportionately to rate and volume based on their relative absolute magnitudes.

Selected Quarterly Data (unaudited)

Selected Quarterly Data	Quarter ended							
	2017				2016			
(dollar amounts in millions, except per share amounts)	**Dec. 31**	**Sept. 30**	**June 30**	**March 31**	Dec. 31	Sept. 30	June 30	March 31
Consolidated income statement								
Total fee and other revenue	**$ 2,860**	**$ 3,167**	**$ 3,120**	**$ 3,018**	$ 2,954	$ 3,150	$ 2,999	$ 2,970
Income (loss) from consolidated investment management funds	**17**	**10**	**10**	**33**	5	17	10	(6)
Net interest revenue	**851**	**839**	**826**	**792**	831	774	767	766
Total revenue	**3,728**	**4,016**	**3,956**	**3,843**	3,790	3,941	3,776	3,730
Provision for credit losses	**(6)**	**(6)**	**(7)**	**(5)**	7	(19)	(9)	10
Noninterest expense	**3,006**	**2,654**	**2,655**	**2,642**	2,631	2,643	2,620	2,629
Income before taxes	**728**	**1,368**	**1,308**	**1,206**	1,152	1,317	1,165	1,091
(Benefit) provision for income taxes	**(453)**	**348**	**332**	**269**	280	324	290	283
Net income	**1,181**	**1,020**	**976**	**937**	872	993	875	808
Net (income) loss attributable to noncontrolling interests	**(6)**	**(2)**	**(1)**	**(15)**	(2)	(6)	(2)	9
Net income applicable to shareholders of The Bank of New York Mellon Corporation	**1,175**	**1,018**	**975**	**922**	870	987	873	817
Preferred stock dividends	**(49)**	**(35)**	**(49)**	**(42)**	(48)	(13)	(48)	(13)
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	**$ 1,126**	**$ 983**	**$ 926**	**$ 880**	$ 822	$ 974	$ 825	$ 804
Basic earnings per common share	**$ 1.09**	**$ 0.94**	**$ 0.88**	**$ 0.83**	$ 0.77	$ 0.90	$ 0.76	$ 0.73
Diluted earnings per common share	**1.08**	**0.94**	**0.88**	**0.83**	0.77	0.90	0.75	0.73
Average balances								
Interest-bearing deposits with banks	**$ 89,029**	**$ 86,329**	**$ 84,148**	**$ 80,757**	$ 77,119	$ 88,168	$ 112,182	$ 104,001
Securities	**120,225**	**119,089**	**117,227**	**114,786**	117,660	118,405	118,002	118,538
Trading securities	**2,723**	**2,359**	**2,455**	**2,254**	2,288	2,176	2,152	3,320
Loans	**56,772**	**55,944**	**58,793**	**60,312**	63,647	61,578	60,284	61,196
Total interest-earning assets	**297,166**	**291,841**	**289,496**	**283,421**	287,947	296,703	318,433	310,678
Assets of operations	**350,129**	**344,966**	**341,607**	**335,080**	343,138	350,190	372,974	363,245
Total assets	**350,786**	**345,709**	**342,515**	**336,200**	344,142	351,230	374,220	364,554
Deposits	**216,874**	**212,658**	**216,222**	**213,375**	227,948	236,728	249,155	244,961
Long-term debt	**28,245**	**28,138**	**27,398**	**25,882**	24,986	23,930	22,838	21,556
Preferred stock	**3,542**	**3,542**	**3,542**	**3,542**	3,542	3,284	2,552	2,552
Total The Bank of New York Mellon Corporation common shareholders' equity	**36,952**	**36,780**	**35,862**	**34,965**	35,171	35,767	35,827	35,252
Net interest margin	**1.14%**	**1.15%**	**1.14%**	**1.13%**	1.16%	1.05%	0.97%	0.99%
Annualized return on common equity *(a)*	**12.1%**	**10.6%**	**10.4%**	**10.2%**	9.3%	10.8%	9.3%	9.2%
Pre-tax operating margin	**20%**	**34%**	**33%**	**31%**	30%	33%	31%	29%
Common stock data *(a)*								
Market price per share range:								
High	**$ 55.40**	**$ 54.59**	**$ 51.59**	**$ 48.96**	$ 49.54	$ 42.02	$ 42.61	$ 40.29
Low	**50.53**	**50.15**	**45.89**	**43.85**	38.68	36.50	35.44	32.20
Average	**53.27**	**52.48**	**47.83**	**46.77**	45.10	39.94	39.78	36.26
Period end close	**53.86**	**53.02**	**51.02**	**47.23**	47.38	39.88	38.85	36.83
Cash dividends per common share	**0.24**	**0.24**	**0.19**	**0.19**	0.19	0.19	0.17	0.17
Market capitalization *(b)*	**54,584**	**54,294**	**52,712**	**49,113**	49,630	42,167	41,479	39,669

(a) At Dec. 31, 2017 , there were 29,472 shareholders registered with our stock transfer agent, compared with 28,015 at Dec. 31, 2016 and 29,136 at Dec. 31, 2015 . In addition, there were 45,015 of BNY Mellon's current and former employees at Dec. 31, 2017 who participate in BNY Mellon's 401(k) Retirement Savings Plan. All shares of BNY Mellon's common stock held by the Plan for its participants are registered in the name of The Bank of New York Mellon Corporation, as trustee.

(b) At period end.

Some statements in this document are forward-looking. These include all statements about the usefulness of Non-GAAP measures, the future results of BNY Mellon, our businesses, financial, liquidity and capital condition, results of operations, liquidity and capital management and processes, goals, strategies, outlook, objectives, expectations (including those regarding our performance results, regulatory, technology, market, economic or accounting developments, legal proceedings and other contingencies, effective tax rate, estimates (including those regarding capital ratios), intentions (including those regarding our resolution strategy), targets, opportunities and initiatives.

In this report, any other report, any press release or any written or oral statement that BNY Mellon or its executives may make, words, such as “estimate,” “forecast,” “project,” “anticipate,” “likely,” “target,” “expect,” “intend,” “continue,” “seek,” “believe,” “plan,” “goal,” “could,” “should,” “would,” “may,” “might,” “will,” “strategy,” “synergies,” “opportunities,” “trends,” “future” and words of similar meaning, may signify forward-looking statements.

Actual results may differ materially from those expressed or implied as a result of a number of factors, including those discussed in the “Risk Factors,” such as: a communications or technology disruption or failure that results in a loss of information or impacts our ability to provide services to our clients may materially adversely affect our business, financial condition and results of operations; a cybersecurity incident, or a failure to protect our computer systems, networks and information and our clients’ information against cybersecurity threats, could result in a loss of information, adversely impact our ability to conduct our businesses, and damage our reputation and cause losses; our business may be materially adversely affected by operational risk; failure to satisfy regulatory standards, including “well capitalized” and “well managed” status or capital adequacy and liquidity rules more generally, could result in limitations on our activities and adversely affect our business and financial condition; we are subject to extensive government rulemaking, regulation and supervision; these rules and regulations have, and in the future may, compel us to change how we manage our businesses, which could have a material adverse effect on our business, financial condition and results of operations; rules and regulations have increased our compliance and operational risk and costs; our risk management framework may not be effective in mitigating risk and reducing the potential for losses; a failure or circumvention of our controls and procedures could have a material adverse effect on our business, reputation, results of operations and financial condition; if our resolution plan is determined not to be credible or not to facilitate an orderly resolution under the U.S. Bankruptcy Code, our business, reputation, results of operations and financial condition could be materially negatively impacted; the application of our Title I preferred resolution strategy or resolution under the Title II orderly liquidation authority could adversely affect our liquidity and financial condition and our security holders; regulatory or enforcement actions or litigation could materially adversely affect our results of operations or harm our businesses or reputation; our businesses may be negatively affected by adverse events, publicity, government scrutiny or other reputational harm; acts of terrorism, natural disasters, pandemics, global conflicts and other geopolitical events may have a negative impact on our business and operations; we are dependent on fee-based business for a substantial majority of our revenue and our fee-based revenues could be adversely affected by slowing in market activity, weak financial markets, underperformance and/or negative trends in savings rates or in investment preferences; weakness and volatility in financial markets and the economy generally may materially adversely affect our business, results of operations and financial condition; the United Kingdom’s referendum decision to leave the EU has had and may continue to have negative effects on global economic conditions, global financial markets, and our business and results of operations; changes in interest rates and yield curves could have a material adverse effect on our profitability; we may experience write-downs of securities that we own and other losses related to volatile and illiquid market conditions, reducing our earnings and impacting our financial condition; ongoing concerns about the financial stability of certain countries, new barriers to global trade or a breakup of the EU or Eurozone could have a material adverse effect on our business and results of operations; our FX revenue may be adversely affected by decreases in market volatility and the cross-border investment activity of our clients; the failure or perceived weakness of any of our significant counterparties, many of whom are major financial institutions and sovereign entities, and our assumption of credit and counterparty risk, could expose us to loss and adversely affect our business; our business, financial condition and results of operations could be adversely affected if we do not effectively manage our liquidity; any material reduction in our credit ratings or the credit ratings of our principal bank subsidiaries, The Bank of New York Mellon or BNY Mellon, N.A., could increase the cost of funding and borrowing to us and our rated subsidiaries and have a material adverse effect on our results of operations and financial condition and on the value of the securities we issue; we could incur losses if our allowance for credit losses, including loan and lending related commitments reserves, is inadequate; new lines of business, new products and services or transformational or strategic project initiatives may subject us to additional risks, and the failure to implement these initiatives could affect our results of operations; we are subject to competition in all aspects of our business, which could negatively affect our ability to maintain or increase our profitability; our business may be adversely affected if we are unable to attract and retain employees; our strategic transactions present risks and uncertainties and could have an adverse effect on our business, results of operations and financial condition; tax law changes, including the recent enactment of the Tax Act, or challenges to our tax positions with respect to historical transactions may adversely affect our net income, effective tax rate and our overall results of operations and financial condition; our ability to return capital to shareholders is subject to the discretion of our board of directors and may be limited by U.S. banking laws and regulations, including those governing capital and the approval of our capital plan, applicable provisions of Delaware law or our failure to pay full and timely dividends on our preferred stock; changes in the method pursuant to which the LIBOR and other benchmark rates are determined could adversely impact our business and results of operations; the Parent is a non-operating holding company, and as a result, is dependent on dividends from its subsidiaries and extensions of credit from its IHC to meet its obligations, including with respect to its securities, and to provide funds for share repurchases and payment of dividends to its stockholders; changes in accounting standards governing the preparation of our financial statements and future events could have a material impact on our reported financial condition, results of operations, cash flows and other financial data.

Investors should consider all risk factors discussed in our 2017 Annual Report and any subsequent reports filed with the SEC by BNY Mellon pursuant to the Exchange Act. All forward-looking statements speak only as of the date on which such statements are made, and BNY Mellon undertakes no obligation to update any statement to reflect events or circumstances after the date on which such forward-looking statement is made or to reflect the occurrence of unanticipated events. The contents of BNY Mellon’s website or any other websites referenced herein are not part of this report.

Acronyms

ABS	Asset-backed security	**LCR**	Liquidity coverage ratio
APAC	Asia-Pacific region	**LTD**	External eligible long-term debt
ASC	Accounting Standards Codification	**M&I**	Merger and integration
ASU	Accounting Standards Update	**MBS**	Mortgage-backed security
AUC/A	Assets under custody and/or administration	**MMF**	Money market funds
AUM	Assets under management	**N/A**	Not applicable or Not available
BCBS	Basel Committee on Banking Supervision	**NAV**	Net asset value
BHCs	Bank holding companies	**N/M**	Not meaningful
bps	basis points	**NSFR**	Net stable funding ratio
CCAR	Comprehensive Capital Analysis and Review	**NYSE**	New York Stock Exchange
CD	Certificates of deposit	**OCC**	Office of the Comptroller of the Currency
CET1	Common Equity Tier 1 capital	**OCI**	Other comprehensive income
CFTC	Commodity Futures Trading Commission	**OTC**	Over-the-counter
CLO	Collateralized loan obligation	**OTTI**	Other-than-temporary impairment
CVA	Credit valuation adjustment	**PRA**	Prudential Regulation Authority
DVA	Debit valuation adjustment	**PSUs**	Performance units
EMEA	Europe, the Middle East and Africa	**REIT**	Real estate investment trust
ERISA	Employee Retirement Income Security Act of 1974	**RMBS**	Residential mortgage-backed security
ESOP	Employee Stock Ownership Plan	**RSUs**	Restricted stock units
EVE	Economic Value of Equity	**RWAs**	Risk-weighted assets
FASB	Financial Accounting Standards Board	**S&P**	Standard & Poor’s
FCA	Financial Conduct Authority	**SBIC**	Small Business Investment Company
FDIC	Federal Deposit Insurance Corporation	**SBLC**	Standby letters of credit
FHC	Financial holding company	**SEC**	Securities and Exchange Commission
FINRA	Financial Industry Regulatory Authority, Inc.	**SIFIs**	Systemically important financial institutions
FTE	Fully taxable equivalent	**SLR**	Supplementary Leverage Ratio
GAAP	Generally accepted accounting principles	**TDR**	Troubled debt restructuring
G-SIBs	Global systemically important banks	**TLAC**	Total loss-absorbing capacity
HQLA	High-quality liquid assets	**VaR**	Value-at-risk
IHC	Intermediate Holding Company	**VIE**	Variable interest entity
LIBOR	London Interbank Offered Rate	**VME**	Voting model entity

Accumulated benefit obligation - The actuarial present value of benefits (vested and non-vested) attributed to employee services rendered.

Alt-A securities - A mortgage risk categorization that falls between prime and subprime. Borrowers behind these mortgages will typically have clean credit histories but the mortgage itself will generally have issues that increase its risk profile.

Alternative investments - Usually refers to investments in hedge funds, leveraged loans, subordinated and distressed debt, real estate and foreign currency overlay. Examples of alternative investment strategies are: long-short equity, event-driven, statistical arbitrage, fixed-income arbitrage, convertible arbitrage, short bias, global macro and equity market neutral.

Asset-backed security ("ABS") - A financial security backed by a loan, lease or receivables against assets other than real estate and mortgage-backed securities.

Assets under custody and/or administration ("AUC/A") - Assets that we hold directly or indirectly on behalf of clients under a safekeeping or custody arrangement or for which we provide administrative services for clients. The following types of assets under administration are not and historically have not been included in AUC/A: performance and risk analytics, transfer agency and asset aggregation services. To the extent that we provide more than one AUC/A service for a client's assets, the value of the asset is only counted once in the total amount of AUC/A.

Assets under management ("AUM") - Includes assets beneficially owned by our clients or customers which we hold in various capacities that are either actively or passively managed, as well as the value of hedges supporting customer liabilities. These assets and liabilities are not on our balance sheet.

CAMELS - An international bank-rating system where bank supervisory authorities rate institutions according to six factors. The six factors are Capital adequacy, Asset quality, Management quality, Earnings, Liquidity and Sensitivity to Market Risk.

Collateral management - A comprehensive program designed to simplify collateralization and expedite securities transfers for buyers and sellers.

Collateralized loan obligation ("CLO") - A debt security backed by a pool of commercial loans.

Collective trust fund - An investment fund formed from the pooling of investments by investors.

Common Equity Tier 1 capital ("CET1") - The sum of surplus (net of treasury stock), retained earnings, accumulated other comprehensive income (loss), and common equity Tier 1 minority interest subject to certain limitations, minus certain regulatory adjustments and deductions.

Counterparty risk (default risk) - The risk that a counterparty will not pay as obligated on a contract, trade or transaction.

Credit derivatives - Contractual agreements that provide insurance against a credit event of one or more referenced credits. Such events include bankruptcy, insolvency and failure to meet payment obligations when due.

Credit risk - The risk of loss due to borrower or counterparty default.

Credit valuation adjustment ("CVA") - The market value of counterparty credit risk on OTC derivative transactions.

Currency swaps - An agreement to exchange stipulated amounts of one currency for another currency.

Debit valuation adjustment ("DVA") - The market value of our credit risk on OTC derivative transactions.

Depositary Receipts - A negotiable security that generally represents a non-U.S. company's publicly traded equity.

Derivative - A contract or agreement whose value is derived from changes in interest rates, foreign exchange rates, prices of securities or commodities, credit worthiness for credit default swaps or financial or commodity indices.

Earnings allocated to participating securities - Amount of undistributed earnings, after payment of taxes, preferred stock dividends and the required adjustment for common stock dividends declared, that is allocated to securities that are eligible to receive a portion of the Company's earnings.

Economic capital - the amount of capital required to absorb potential losses and reflects the probability of remaining solvent with a target debt rating over a one-year time horizon.

Economic value of equity ("EVE") - An aggregation of discounted future cash flows of assets and liabilities over a long-term horizon.

Eurozone - Formed by European Union Member States whose currency is the euro (€) and in which a single monetary policy is conducted under the responsibility of the Governing Council of the European Central Bank. The Eurozone currently includes Germany, France, Belgium, the Netherlands, Luxembourg, Austria, Finland, Italy, Ireland, Spain, Portugal, Greece, Estonia, Cyprus, Malta, Slovenia, Slovakia, Latvia and Lithuania.

Fiduciary risk - The risk arising from our role as trustee, executor, investment agent or guardian in accordance with governing documents, prudent person principles and applicable laws, rules and regulations.

Foreign currency options - Similar to interest rate options except they are based on foreign exchange rates. Also, see interest rate options in this glossary.

Foreign currency swaps - An agreement to exchange stipulated amounts of one currency for another currency at one or more future dates.

Foreign exchange contracts - Contracts that provide for the future receipt or delivery of foreign currency at previously agreed-upon terms.

Forward rate agreements - Contracts to exchange payments on a specified future date, based on a market change in interest rates from trade date to contract settlement date.

Fully taxable equivalent ("FTE") - Basis for comparison of yields on assets having ordinary taxability with assets for which special tax exemptions apply. The FTE adjustment reflects an increase in the interest yield or return on a tax-exempt asset to a level that would be comparable had the asset been fully taxable.

Generally accepted accounting principles ("GAAP") - Accounting rules and conventions defining acceptable practices in preparing financial statements in the U.S. The FASB is the primary source of accounting rules.

Grantor Trust - A legal, passive entity through which pass-through securities are sold to investors.

Hedge fund - A fund which is allowed to use diverse strategies that are unavailable to mutual funds, including selling short, leverage, program trading, swaps, arbitrage and derivatives.

High-quality liquid assets ("HQLA") - Unencumbered assets of the types identified in the U.S. LCR rule, which the U.S. banking agencies describe as able to be convertible into cash with little or no expected loss of value during a period of liquidity stress.

Impairment - When an asset's market value is less than its carrying value.

Interest rate options - Contracts to modify interest rate risk in exchange for the payment of a premium when the contract is initiated. As a writer of interest rate options, we receive a premium in exchange for bearing the risk of unfavorable changes in interest rates. Conversely, as a purchaser of an option, we pay a premium for the right, but not the obligation, to buy or sell a financial instrument or currency at predetermined terms in the future.

Interest rate sensitivity - The exposure of net interest income to interest rate movements.

Interest rate swaps - Contracts in which a series of interest rate flows in a single currency are exchanged over a prescribed period. Interest rate swaps are the most common type of derivative contract that we use in our asset/liability management activities.

Investment grade - Represents Moody's long-term rating of Baa3 or better; and/or a Standard & Poor's, Fitch or DBRS long-term rating of BBB- or better; or if unrated, an equivalent rating using our internal risk ratings. Instruments that fall below these levels are considered to be non-investment grade.

Joint venture - A company or entity owned and operated by a group of companies for a specific business purpose, no one of which has a majority interest.

Leverage ratio - Tier 1 capital divided by quarterly average total assets, as defined by the regulators.

Liquidity coverage ratio ("LCR") - A Basel III framework requirement for banks and BHCs to measure liquidity. It is designed to ensure that certain banking organizations, including BNY Mellon, maintain a minimum amount of unencumbered HQLA sufficient to withstand the net cash outflow under a hypothetical standardized acute liquidity stress scenario for a 30-day time horizon.

Litigation risk - Arises when, in the ordinary course of business, we are named as defendants or made parties to legal actions.

Master netting agreement - An agreement between two counterparties that have multiple contracts with each other that provides for the net settlement of all contracts through a single payment in the event of default or termination of any one contract.

Mortgage-backed security ("MBS") - An asset-backed security whose cash flows are backed by the principal and interest payments of a set of mortgage loans.

Net interest margin - The result of dividing net interest revenue by average interest-earning assets.

Other-than-temporary impairment ("OTTI") - An impairment charge taken on a security whose fair value has fallen below the carrying value on the balance sheet and its value is not expected to recover through the holding period of the security.

Performance fees - Fees received by an investment advisor based upon the fund's performance for the period relative to various predetermined benchmarks.

Pre-tax operating margin - Income before taxes for a period divided by total revenue for that period.

Prime securities - A classification of securities collateralized by loans to borrowers who have a high-value and/or a good credit history.

Private equity/venture capital - Investment in start-up companies or those in the early processes of developing products and services with perceived, long-term growth potential.

Projected benefit obligation - The actuarial present value of all benefits accrued on employee service rendered prior to the calculation date, including allowance for future salary increases if the pension benefit is based on future compensation levels.

Rating agency - An independent agency that assesses the credit quality and likelihood of default of an issue or issuer and assigns a rating to that issue or issuer.

Real estate investment trust ("REIT") - An investor-owned corporation, trust or association that sells shares to investors and invests in income-producing property.

Repurchase agreement ("Repo") - An instrument used to raise short term funds whereby securities are sold with an agreement for the seller to buy back the securities at a later date.

Reputational risk - Arises when events or actions that negatively impact our reputation lead to a loss of existing clients and could make it more challenging to acquire new business.

Residential mortgage-backed security ("RMBS") - An asset-backed security whose cash flows are backed by principal and interest payments of a set of residential mortgage loans.

Restructuring charges - Typically result from the consolidation and/or relocation of operations.

Return on average assets - Net income applicable to common shareholders divided by average assets.

Return on common equity - Net income applicable to common shareholders divided by average common shareholders' equity.

Return on tangible common equity - Net income applicable to common shareholders, excluding amortization of intangible assets, divided by average tangible common shareholders' equity.

Securities lending transaction - A fully collateralized transaction in which the owner of a security agrees to lend the security through an agent (such as The Bank of New York Mellon) to a borrower, usually a broker-dealer or bank, on an open, overnight or term basis, under the terms of a prearranged contract, which generally matures in less than 90 days.

Sub-custodian - A local provider (e.g., a bank) contracted to provide specific custodial-related services in a selected country or geographic area.

Subprime securities - A classification of securities collateralized by loans to borrowers who have a tarnished or limited credit history.

Supplementary Leverage Ratio (“SLR”) - An Advanced Approach banking organization’s Basel III SLR is the simple arithmetic mean of the ratio of its Tier 1 capital to total leverage exposure (which is broadly defined to capture both on- and off-balance sheet exposures).

Tangible common shareholders’ equity - Common equity less goodwill and intangible assets adjusted for deferred tax liabilities associated with non-tax deductible intangible assets and tax deductible goodwill.

Unfunded commitments - Legally binding agreements to provide a defined level of financing until a specified future date.

Value-at-risk (“VaR”) - A measure of the dollar amount of potential loss in value due to adverse market movements over a defined time horizon with a specified confidence level.

Variable interest entity (“VIE”) - An entity that: (1) lacks enough equity investment at risk to permit the entity to finance its activities without additional financial support from other parties; (2) has equity owners that lack the right to make significant decisions affecting the entity’s operations; and/or (3) has equity owners that do not have an obligation to absorb, or the right to receive, the entity’s losses or returns.

Report of Management on Internal Control Over Financial Reporting

Management of BNY Mellon is responsible for establishing and maintaining adequate internal control over financial reporting for BNY Mellon, as such term is defined in Rule 13a-15(f) under the Exchange Act.

BNY Mellon's management, including its principal executive officer and principal financial officer, has assessed the effectiveness of BNY Mellon's internal control over financial reporting as of December 31, 2017 . In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control - Integrated Framework (2013). Based upon such assessment, management believes that, as of December 31, 2017 , BNY Mellon's internal control over financial reporting is effective based upon those criteria.

KPMG LLP, the independent registered public accounting firm that audited BNY Mellon's 2017 financial statements included in this Annual Report under "Financial Statements and Notes," has issued a report with respect to the effectiveness of BNY Mellon's internal control over financial reporting. This report appears on page 132 .

To the Stockholders and Board of Directors
The Bank of New York Mellon Corporation:

Opinion on Internal Control Over Financial Reporting

We have audited The Bank of New York Mellon Corporation and subsidiaries' (BNY Mellon) internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, BNY Mellon maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of BNY Mellon as of December 31, 2017 and 2016, the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2017, and the related notes (collectively, the consolidated financial statements), and our report dated February 28, 2018 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

BNY Mellon's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Report of Management on Internal Control over Financial Reporting. Our responsibility is to express an opinion on BNY Mellon's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to BNY Mellon in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP

New York, New York
February 28, 2018

Item 1. Financial Statements

The Bank of New York Mellon Corporation (and its subsidiaries)

Consolidated Income Statement

	Year ended Dec. 31,		
(in millions)	**2017**	2016	2015
Fee and other revenue			
Investment services fees:			
Asset servicing	**$ 4,383**	$ 4,244	$ 4,187
Clearing services	**1,553**	1,404	1,375
Issuer services	**977**	1,026	978
Treasury services	**557**	547	555
Total investment services fees	**7,470**	7,221	7,095
Investment management and performance fees	**3,584**	3,350	3,438
Foreign exchange and other trading revenue	**668**	701	768
Financing-related fees	**216**	219	220
Distribution and servicing	**160**	166	162
Investment and other income	**64**	341	316
Total fee revenue	**12,162**	11,998	11,999
Net securities gains — including other-than-temporary impairment	**6**	79	82
Noncredit-related portion of other-than-temporary impairment (recognized in other comprehensive income)	**3**	4	(1)
Net securities gains	**3**	75	83
Total fee and other revenue	**12,165**	12,073	12,082
Operations of consolidated investment management funds			
Investment income	**74**	35	115
Interest of investment management fund note holders	**4**	9	29
Income from consolidated investment management funds	**70**	26	86
Net interest revenue			
Interest revenue	**4,382**	3,575	3,326
Interest expense	**1,074**	437	300
Net interest revenue	**3,308**	3,138	3,026
Total revenue	**15,543**	15,237	15,194
Provision for credit losses	**(24)**	(11)	160
Noninterest expense			
Staff	**5,972**	5,733	5,837
Professional, legal and other purchased services	**1,274**	1,185	1,230
Software	**744**	647	627
Net occupancy	**569**	590	600
Distribution and servicing	**419**	405	381
Sub-custodian	**250**	245	270
Furniture and equipment	**241**	247	280
Business development	**229**	245	267
Bank assessment charges	**220**	219	157
Other	**724**	721	804
Amortization of intangible assets	**209**	237	261
Merger and integration, litigation and restructuring charges	**106**	49	85
Total noninterest expense	**10,957**	10,523	10,799
Income			
Income before income taxes	**4,610**	4,725	4,235
Provision for income taxes	**496**	1,177	1,013
Net income	**4,114**	3,548	3,222
Net (income) attributable to noncontrolling interests (includes $(33), $(10) and $(68) related to consolidated investment management funds, respectively)	**(24)**	(1)	(64)
Net income applicable to shareholders of The Bank of New York Mellon Corporation	**4,090**	3,547	3,158

Preferred stock dividends	**(175)**	(122)	(105)
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	**$ 3,915**	$ 3,425	$ 3,053

Consolidated Income Statement (continued)

Net income applicable to common shareholders of The Bank of New York Mellon Corporation used for the earnings per share calculation	Year ended Dec. 31,		
(in millions)	**2017**	2016	2015
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	**$ 3,915**	$ 3,425	$ 3,053
Less: Earnings allocated to participating securities *(a)*	**43**	52	43
Net income applicable to common shareholders of The Bank of New York Mellon Corporation after required adjustment for the calculation of basic and diluted earnings per common share	**$ 3,872**	$ 3,373	$ 3,010

Average common shares and equivalents outstanding of The Bank of New York Mellon Corporation *(a)*	Year ended Dec. 31,		
(in thousands)	**2017**	2016	2015
Basic	**1,034,281**	1,066,286	1,104,719
Common stock equivalents	**13,030**	15,672	17,290
Less: Participating securities	**(7,021)**	(9,945)	(9,498)
Diluted	**1,040,290**	1,072,013	1,112,511
Anti-dilutive securities *(b)*	**12,383**	31,695	28,736

Earnings per share applicable to common shareholders of The Bank of New York Mellon Corporation *(c)*	Year ended Dec. 31,		
(in dollars)	**2017**	2016	2015
Basic	**$ 3.74**	$ 3.16	$ 2.73
Diluted	**$ 3.72**	$ 3.15	$ 2.71

(a) Beginning in the third quarter of 2017, vested stock awards to retirement eligible employees are included in common shares outstanding for earnings per share purposes. This change resulted in a de minimis increase to both average basic and average diluted shares outstanding.

(b) Represents stock options, restricted stock, restricted stock units and participating securities outstanding but not included in the computation of diluted average common shares because their effect would be anti-dilutive.

(c) Basic and diluted earnings per share under the two-class method are determined on the net income applicable to common shareholders of The Bank of New York Mellon Corporation reported on the income statement less earnings allocated to participating securities.

See accompanying Notes to Consolidated Financial Statements.

Consolidated Comprehensive Income Statement

(in millions)	Year ended Dec. 31, 2017	2016	2015
Net income	**$ 4,114**	$ 3,548	$ 3,222
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments	**853**	(850)	(599)
Unrealized gain (loss) on assets available-for-sale:			
Unrealized gain (loss) arising during the period	**153**	(242)	(363)
Reclassification adjustment	**(3)**	(49)	(52)
Total unrealized gain (loss) on assets available-for-sale	**150**	(291)	(415)
Defined benefit plans:			
Net gain (loss) arising during the period	**342**	(108)	(65)
Foreign exchange adjustment	**1**		
Amortization of prior service credit, net loss and initial obligation included in net periodic benefit cost	**68**	57	69
Total defined benefit plans	**411**	(51)	4
Net unrealized gain (loss) on cash flow hedges	**9**	(4)	8
Total other comprehensive income (loss), net of tax *(a)*	**1,423**	(1,196)	(1,002)
Total comprehensive income	**5,537**	2,352	2,220
Net (income) loss attributable to noncontrolling interests	**(24)**	(1)	(64)
Other comprehensive (income) loss attributable to noncontrolling interests	**(15)**	31	36
Comprehensive income applicable to shareholders of The Bank of New York Mellon Corporation	**$ 5,498**	$ 2,382	$ 2,192

(a) Other comprehensive income (loss) attributable to The Bank of New York Mellon Corporation shareholders was $1,408 million for the year ended Dec. 31, 2017 , $(1,165) million for the year ended Dec. 31, 2016 and $(966) million for the year ended Dec. 31, 2015 .

See accompanying Notes to Consolidated Financial Statements.

The Bank of New York Mellon Corporation (and its subsidiaries)

Consolidated Balance Sheet

(dollars in millions, except per share amounts)	Dec. 31, 2017	2016
Assets		
Cash and due from:		
Banks	**$ 5,382**	$ 4,822
Interest-bearing deposits with the Federal Reserve and other central banks	**91,510**	58,041
Interest-bearing deposits with banks	**11,979**	15,086
Federal funds sold and securities purchased under resale agreements	**28,135**	25,801
Securities:		
Held-to-maturity (fair value of $40,512 and $40,669)	**40,827**	40,905
Available-for-sale	**79,543**	73,822
Total securities	**120,370**	114,727
Trading assets	**6,022**	5,733
Loans	**61,540**	64,458
Allowance for loan losses	**(159)**	(169)
Net loans	**61,381**	64,289
Premises and equipment	**1,634**	1,303
Accrued interest receivable	**610**	568
Goodwill	**17,564**	17,316
Intangible assets	**3,411**	3,598
Other assets (includes $791 and $1,339, at fair value)	**23,029**	20,954
Subtotal assets of operations	**371,027**	332,238
Assets of consolidated investment management funds, at fair value	**731**	1,231
Total assets	**$ 371,758**	$ 333,469
Liabilities		
Deposits:		
Noninterest-bearing (principally U.S. offices)	**$ 82,716**	$ 78,342
Interest-bearing deposits in U.S. offices	**52,294**	52,049
Interest-bearing deposits in non-U.S. offices	**109,312**	91,099
Total deposits	**244,322**	221,490
Federal funds purchased and securities sold under repurchase agreements	**15,163**	9,989
Trading liabilities	**3,984**	4,389
Payables to customers and broker-dealers	**20,184**	20,987
Commercial paper	**3,075**	
Other borrowed funds	**3,028**	754
Accrued taxes and other expenses	**6,225**	5,867
Other liabilities (including allowance for lending-related commitments of $102 and $112, also includes $800 and $597, at fair value)	**6,050**	5,635
Long-term debt (includes $367 and $363, at fair value)	**27,979**	24,463
Subtotal liabilities of operations	**330,010**	293,574
Liabilities of consolidated investment management funds, at fair value	**2**	315
Total liabilities	**330,012**	293,889
Temporary equity		
Redeemable noncontrolling interests	**179**	151
Permanent equity		
Preferred stock – par value $0.01 per share; authorized 100,000,000 shares; issued 35,826 and 35,826 shares	**3,542**	3,542
Common stock – par value $0.01 per share; authorized 3,500,000,000 shares; issued 1,354,163,581 and 1,333,706,427 shares	**14**	13
Additional paid-in capital	**26,665**	25,962
Retained earnings	**25,635**	22,621
Accumulated other comprehensive loss, net of tax	**(2,357)**	(3,765)
Less: Treasury stock of 340,721,136 and 286,218,126 common shares, at cost	**(12,248)**	(9,562)
Total The Bank of New York Mellon Corporation shareholders' equity	**41,251**	38,811
Nonredeemable noncontrolling interests of consolidated investment management funds	**316**	618

Total permanent equity	**41,567**	39,429
Total liabilities, temporary equity and permanent equity	**$ 371,758**	$ 333,469

See accompanying Notes to Consolidated Financial Statements.

The Bank of New York Mellon Corporation (and its subsidiaries)

Consolidated Statement of Cash Flows

	Year ended Dec. 31,		
(in millions)	**2017**	2016	2015
Operating activities			
Net income	**$ 4,114**	$ 3,548	$ 3,222
Net (income) loss attributable to noncontrolling interests	**(24)**	(1)	(64)
Net income applicable to shareholders of The Bank of New York Mellon Corporation	**4,090**	3,547	3,158
Adjustments to reconcile net income to net cash provided by operating activities:			
Provision for credit losses	**(24)**	(11)	160
Pension plan contributions	**(114)**	(108)	(70)
Depreciation and amortization	**1,474**	1,502	1,457
Deferred tax expense (benefit)	**133**	(126)	47
Net securities (gains)	**(3)**	(75)	(83)
Change in trading assets and liabilities	**(694)**	1,522	(414)
Originations of loans held-for-sale	**—**	(350)	(1,106)
Proceeds from the sales of loans originated for sale	**—**	831	725
Change in accruals and other, net	**(221)**	(486)	253
Net cash provided by operating activities	**4,641**	6,246	4,127
Investing activities			
Change in interest-bearing deposits with banks	**3,830**	(327)	4,225
Change in interest-bearing deposits with the Federal Reserve and other central banks	**(29,613)**	53,347	(16,521)
Purchases of securities held-to-maturity	**(8,329)**	(6,673)	(16,060)
Paydowns of securities held-to-maturity	**4,448**	4,907	3,698
Maturities of securities held-to-maturity	**3,992**	3,738	1,222
Purchases of securities available-for-sale	**(26,151)**	(27,470)	(33,785)
Sales of securities available-for-sale	**6,001**	7,580	19,016
Paydowns of securities available-for-sale	**9,129**	8,826	8,776
Maturities of securities available-for-sale	**6,319**	11,347	14,689
Net change in loans	**2,794**	(1,483)	(4,615)
Sales of loans and other real estate	**392**	173	362
Change in federal funds sold and securities purchased under resale agreements	**(2,334)**	(1,407)	(4,071)
Net change in seed capital investments	**(124)**	(114)	287
Purchases of premises and equipment/capitalized software	**(1,197)**	(825)	(601)
Proceeds from the sale of premises and equipment	**—**	65	
Acquisitions, net of cash	**—**	(38)	(9)
Dispositions, net of cash	**—**	1	17
Other, net	**(207)**	(444)	3,583
Net cash (used for) provided by investing activities	**(31,050)**	51,203	(19,787)
Financing activities			
Change in deposits	**17,069**	(54,738)	11,890
Change in federal funds purchased and securities sold under repurchase agreements	**5,174**	(5,013)	3,533
Change in payables to customers and broker-dealers	**(813)**	(911)	719
Change in other borrowed funds	**1,852**	225	(394)
Change in commercial paper	**3,075**		
Net proceeds from the issuance of long-term debt	**4,738**	6,229	4,986
Repayments of long-term debt	**(1,046)**	(2,953)	(3,659)
Proceeds from the exercise of stock options	**431**	438	326
Issuance of common stock	**34**	27	26
Issuance of preferred stock	**—**	990	990
Treasury stock acquired	**(2,686)**	(2,398)	(2,355)
Common cash dividends paid	**(901)**	(778)	(760)
Preferred cash dividends paid	**(175)**	(122)	(105)
Other, net	**28**	(46)	(12)
Net cash provided by (used for) financing activities	**26,780**	(59,050)	15,185
Effect of exchange rate changes on cash	**189**	(114)	42
Change in cash and due from banks			
Change in cash and due from banks	**560**	(1,715)	(433)
Cash and due from banks at beginning of period	**4,822**	6,537	6,970
Cash and due from banks at end of period	**$ 5,382**	$ 4,822	$ 6,537
Supplemental disclosures			
Interest paid	**$ 1,033**	$ 406	$ 295
Income taxes paid	**498**	1,010	1,015

Income taxes refunded	**20**	307	901

See accompanying Notes to Consolidated Financial Statements.

Consolidated Statement of Changes in Equity

(in millions, except per share amount)	Preferred stock	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive (loss) income, net of tax	Treasury stock	Non-redeemable noncontrolling interests of consolidated investment management funds	Total permanent equity		Redeemable non-controlling interests/ temporary equity
	The Bank of New York Mellon Corporation shareholders									
Balance at Dec. 31, 2016	$ 3,542	$ 13	$ 25,962	$ 22,621	$ (3,765)	$ (9,562)	$ 618	$ 39,429	(a)	$ 151
Shares issued to shareholders of noncontrolling interests	—	—	—	—	—	—	—	—		**56**
Redemption of subsidiary shares from noncontrolling interests	—	—	—	—	—	—	—	—		**(70)**
Other net changes in noncontrolling interests	—	—	**(35)**	—	—	—	**(335)**	**(370)**		**36**
Net income (loss)	—	—	—	**4,090**	—	—	**33**	**4,123**		**(9)**
Other comprehensive income	—	—	—	—	**1,408**	—	—	**1,408**		**15**
Dividends:										
Common stock at $0.86 per share	—	—	—	**(901)**	—	—	—	**(901)**		—
Preferred stock	—	—	—	**(175)**	—	—	—	**(175)**		—
Repurchase of common stock	—	—	—	—	—	**(2,686)**	—	**(2,686)**		—
Common stock issued under:										
Employee benefit plans	—	—	**28**	—	—	—	—	**28**		—
Direct stock purchase and dividend reinvestment plan	—	—	**26**	—	—	—	—	**26**		—
Stock awards and options exercised	—	**1**	**684**	—	—	—	—	**685**		—
Balance at Dec. 31, 2017	**$ 3,542**	**$ 14**	**$ 26,665**	**$ 25,635**	**$ (2,357)**	**$ (12,248)**	**$ 316**	**$ 41,567**	*(a)*	**$ 179**

(a) Includes total The Bank of New York Mellon Corporation common shareholders' equity of $35,269 million at Dec. 31, 2016 and $37,709 million at Dec. 31, 2017 .

(in millions, except per share amounts)	Preferred stock	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive (loss) income, net of tax	Treasury stock	Non-redeemable noncontrolling interests of consolidated investment management funds	Total permanent equity		Redeemable non-controlling interests/ temporary equity
	The Bank of New York Mellon Corporation shareholders									
Balance at Dec. 31, 2015	$ 2,552	$ 13	$ 25,262	$ 19,974	$ (2,600)	$ (7,164)	$ 738	$ 38,775	(a)	$ 200
Shares issued to shareholders of noncontrolling interests	—	—	—	—	—	—	—	—		55
Redemption of subsidiary shares from noncontrolling interests	—	—	—	—	—	—	—	—		(102)
Other net changes in noncontrolling interests	—	—	(24)	—	—	—	(130)	(154)		38
Net income (loss)	—	—	—	3,547	—	—	10	3,557		(9)
Other comprehensive (loss)	—	—	—	—	(1,165)	—	—	(1,165)		(31)
Dividends:										
Common stock at $0.72 per share	—	—	—	(778)	—	—	—	(778)		
Preferred stock	—	—	—	(122)	—	—	—	(122)		
Repurchase of common stock	—	—	—	—	—	(2,398)	—	(2,398)		
Common stock issued under:										
Employee benefit plans	—	—	27	—	—	—	—	27		
Direct stock purchase and dividend reinvestment plan	—	—	21	—	—	—	—	21		
Preferred stock issued	990	—	—	—	—	—	—	990		
Stock awards and options exercised	—	—	676	—	—	—	—	676		
Balance at Dec. 31, 2016	$ 3,542	$ 13	$ 25,962	$ 22,621	$ (3,765)	$ (9,562)	$ 618	$ 39,429	(a)	$ 151

(a) Includes total The Bank of New York Mellon Corporation common shareholders' equity of $35,485 million at Dec. 31, 2015 and $35,269 million at Dec. 31, 2016 .

Consolidated Statement of Changes in Equity (continued)

	The Bank of New York Mellon Corporation shareholders								
(in millions, except per share amounts)	Preferred stock	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive income (loss), net of tax	Treasury stock	Non-redeemable noncontrolling interests of consolidated investment management funds	Total permanent equity	Redeemable non-controlling interests/ temporary equity
Balance at Dec. 31, 2014	$ 1,562	$ 13	$ 24,626	$ 17,683	$ (1,634)	$ (4,809)	$ 1,033	$ 38,474 *(a)*	$ 229
Adjustment for the cumulative effect of applying ASU 2015-02 for the consolidation of a legal entity	—	—	—	—	—	—	602	602	
Adjustment for the cumulative effect of applying ASU 2015-02 for the deconsolidation of a legal entity	—	—	—	—	—	—	(866)	(866)	
Adjusted balance at Jan. 1, 2015	1,562	13	24,626	17,683	(1,634)	(4,809)	769	38,210	229
Shares issued to shareholders of noncontrolling interests	—	—	—	—	—	—	—	—	48
Redemption of subsidiary shares from noncontrolling interests	—	—	—	—	—	—	—	—	(92)
Other net changes in noncontrolling interests	—	—	(26)	—	—	—	(73)	(99)	29
Net income	—	—	—	3,158	—	—	68	3,226	(4)
Other comprehensive (loss)	—	—	—	—	(966)	—	(26)	(992)	(10)
Dividends:									
Common stock at $0.68 per share	—	—	—	(762)	—	—	—	(762)	
Preferred stock	—	—	—	(105)	—	—	—	(105)	
Repurchase of common stock	—	—	—	—	—	(2,355)	—	(2,355)	
Common stock issued under:									
Employee benefit plans	—	—	25	—	—	—	—	25	
Direct stock purchase and dividend reinvestment plan	—	—	21	—	—	—	—	21	
Preferred stock issued	990	—	—	—	—	—	—	990	
Stock awards and options exercised	—	—	616	—	—	—	—	616	
Balance at Dec. 31, 2015	$ 2,552	$ 13	$ 25,262	$ 19,974	$ (2,600)	$ (7,164)	$ 738	$ 38,775 *(a)*	$ 200

(a) Includes total The Bank of New York Mellon Corporation common shareholders' equity of $35,879 million at Dec. 31, 2014 and $35,485 million at Dec. 31, 2015

. See accompanying Notes to Consolidated Financial Statements.

Note 1 - Summary of significant accounting and reporting policies

Nature of operations

BNY Mellon is a global leader in providing a broad range of financial products and services in domestic and international markets. Through our two principal businesses, Investment Management and Investment Services, we serve the following major classes of customers - institutions, corporations and high net worth individuals. For institutions and corporations, we provide the following services:

- investment management;
- custody;
- foreign exchange;
- fund services;
- broker-dealer services;
- securities finance;
- collateral and liquidity services;
- clearing services
- depositary receipts;
- corporate trust;
- global payments;
- trade finance; and
- cash management.

For individuals, we provide mutual funds, separate accounts, wealth management and private banking services. BNY Mellon's investment management businesses provide investment products in many asset classes and investment styles on a global basis.

Basis of presentation

The accounting and financial reporting policies of BNY Mellon, a global financial services company, conform to U.S. generally accepted accounting principles ("GAAP") and prevailing industry practices.

In the opinion of management, all adjustments necessary for a fair presentation of financial position, results of operations and cash flows for the periods presented have been made. These financial statements should be read in conjunction with BNY Mellon's Annual Report on Form 10-K for the year ended Dec. 31, 2017 . Certain immaterial reclassifications have been made to prior periods to place them on a basis comparable with current period presentation.

Use of estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates based upon assumptions about future economic and market conditions which affect reported amounts and related disclosures in our financial statements. Although our current estimates contemplate current conditions and how we expect them to change in the future, it is reasonably possible that actual conditions could be worse than anticipated in those estimates, which could materially affect our results of operations and financial condition. Amounts subject to estimates are items such as allowance for loan losses and lending-related commitments, fair value of financial instruments and derivatives, other-than-temporary impairment, goodwill and other intangibles and pension accounting. Among other effects, such changes in estimates could result in future impairments of investment securities, goodwill and intangible assets and establishment of allowances for loan losses and lending-related commitments as well as changes in pension and post-retirement expense.

Changes in accounting

See Note 2 for the new accounting standards adopted in 2017.

Effective Oct. 1, 2016, we changed the accounting method for the amortization of premiums and accretion of discounts on mortgage-backed securities from the prepayment method (also referred to as the retrospective method) to the contractual method, which are both acceptable methods under ASC 310, *Receivables* . The calculation performed under the prepayment method was based on estimating principal prepayment assumptions, principally driven by interest rates, and estimating the remaining lives of securities. This method resulted in retrospective adjustments each period to reflect changes in those estimates as if the updated estimated lives had been applied since the acquisition of the securities. Under the contractual method, no assumption is made concerning prepayments. As principal prepayments occur, a portion of the unamortized premium or discount is recorded in interest revenue such that the effective yield of a security remains constant throughout the life of the security.

We have determined that the contractual method is the preferable method of accounting as it is more aligned with our approach to asset/liability management, it reduces reliance on complex estimates and judgments, and it is consistent with the method predominantly used by our peers. The impact of this change was not considered material to prior periods and, as a result, the cumulative effect of the change of approximately $15 million was reflected as a positive adjustment to net interest revenue in the fourth quarter of 2016. We estimate that net interest revenue for 2016 would have been higher had we continued to use the prepayment method, but have not specifically quantified the impact subsequent to the effective date, as the estimated amortization is also immaterial.

Parent financial statements

The Parent financial statements in Note 17 of the Notes to Consolidated Financial Statements include the accounts of the Parent; those of a wholly owned financing subsidiary that functions as a financing entity for BNY Mellon and its subsidiaries; and MIPA, LLC, a single-member limited liability company, created to hold and administer corporate-owned life insurance. Financial data for the Parent, the financing subsidiary and the single-member limited liability company are combined for financial reporting purposes because of the limited function of these entities and the unconditional guarantee by BNY Mellon of their obligations.

Acquired businesses

The income statement and balance sheet include results of acquired businesses accounted for under the acquisition method of accounting pursuant to ASC 805, *Business Combinations* and equity investments from the dates of acquisition. Contingent purchase consideration was measured at its fair value and recorded on the purchase date. Any subsequent changes in the fair value of a contingent consideration liability are recorded through the income statement.

Equity method investments, including renewable energy investments

The consolidated financial statements include the accounts of BNY Mellon and its subsidiaries. Equity investments of less than a majority but at least 20% ownership are accounted for by the equity method and classified as other assets. Earnings on these investments are reflected in fee and other revenue as investment services fees, investment management and performance fees or investment and other income, as appropriate, in the period earned.

A loss in value of an equity investment that is determined to be other-than-temporary, is recognized by reducing the carrying value of the equity investment down to its fair value.

Renewable energy investment projects through limited liability companies are accounted for using the equity method of accounting. The hypothetical liquidation at book value (“HLBV”) methodology is used to determine the loss that is recognized in each quarter. HLBV estimates the liquidation value at the beginning and end of each quarter, with the difference recognized as the amount of loss under the equity method.

The pre-tax losses are reported in investment and other income section of the income statement. The corresponding tax benefits and credits are recorded as a reduction to provision for income taxes on the income statement. The pre-tax losses, tax benefits and credits are included in our projected annual effective tax rate.

See Note 7 for the amount of our renewable energy investments. Below are our most significant equity method investments, other than the investments in renewable energy.

Equity method investments at Dec. 31, 2017

(dollars in millions)	Percentage ownership	Book value
CIBC Mellon	**50.0% $**	**580**
Siguler Guff	**20.0% $**	**246**

Variable interest and voting model entities

We evaluate an entity for possible consolidation in accordance with ASC 810, *Consolidation* , which we adopted effective Jan. 1, 2015. We first determine whether or not we have variable interests in the entity, which are investments or other interests that absorb portions of an entity’s expected losses or receive portions of the entity’s expected returns. Our variable interests may include decision-maker or service provider fees, direct and indirect investments and investments made by related parties, including related parties under common control. If it is determined that we do not have a variable interest in the entity, no further analysis is required and the entity is not consolidated.

If we hold a variable interest in the entity, further analysis is performed to determine if the entity is a VIE or a voting model entity (“VME”).

We consider the underlying facts and circumstances of individual entities when assessing whether or not an entity is a VIE. An entity is determined to be a VIE if the equity investors:

- do not have sufficient equity at risk for the entity to finance its activities without additional subordinated financial support; or
- lack one or more of the following characteristics of a controlling financial interest:
  - the power, through voting rights or similar rights, to direct the activities of an entity that most significantly impact the entity’s economic performance;
  - the obligation to absorb the expected losses of the entity; and
  - the right to receive the expected residual returns of the entity.

We consolidate a VIE if it is determined that we have a controlling financial interest in the entity. We have a controlling financial interest in a VIE when we have both (1) the power to direct the activities of the VIE that most significantly impact the VIE’s economic performance and (2) the obligation to absorb losses or the right to receive benefits of the VIE that could potentially be significant to that VIE.

For entities that do not meet the definition of a VIE, the entity is considered a VME. We consolidate these entities if we can exert control over the financial and operating policies of an investee, which can occur if we have a 50% or more voting interest in the entity.

Trading securities, available-for-sale securities and held-to-maturity securities

Securities are accounted for under ASC 320, *Investments - Debt and Equity Securities.* Securities are classified as trading, available-for-sale or held-to-maturity investment securities when they are purchased. Securities are classified as trading securities when our intention is to resell the securities. Securities are classified as available-for-sale securities when we intend to hold the securities for an indefinite period of time or when the securities may be used for tactical asset/liability purposes and may be sold from time to time to effectively manage interest rate exposure, prepayment risk and liquidity needs. Securities are classified as held-to-maturity securities when we intend to hold them until maturity.

Trading securities are measured at fair value and included in trading assets on the balance sheet. Trading revenue includes both realized and unrealized gains and losses. The liability incurred on short-sale transactions, representing the obligation to deliver securities, is included in trading liabilities at fair value.

Available-for-sale securities are measured at fair value. The difference between fair value and amortized cost representing unrealized gains or losses on assets classified as available-for-sale, are recorded net of tax as an addition to or deduction from OCI, unless a security is deemed to have OTTI. Gains and losses on sales of available-for-sale securities are reported in the income statement. The cost of debt and equity securities sold is determined on a specific identification and average cost method, respectively. Held-to-maturity securities are measured at amortized cost.

Income on investment securities purchased is adjusted for amortization of premium and accretion of discount on a level yield basis, generally over their contractual life.

We routinely conduct periodic reviews to identify and evaluate each investment security to determine whether OTTI has occurred. We examine various factors when determining whether an impairment, representing the fair value of a security being below its amortized cost, is other than temporary. The following are examples of factors that we consider:

- The length of time and the extent to which the fair value has been less than the amortized cost basis;
- Whether management has an intent to sell the security;
- Whether the decline in fair value is attributable to specific adverse conditions affecting a particular investment;

- Whether the decline in fair value is attributable to specific conditions, such as conditions in an industry or in a geographic area;
- Whether a debt security has been downgraded by a rating agency;
- Whether a debt security exhibits cash flow deterioration; and
- For each non-agency RMBS, we compare the remaining credit enhancement that protects the individual security from losses against the projected losses of principal and/or interest expected to come from the underlying mortgage collateral, to determine whether such credit losses might directly impact the relevant security.

When we do not intend to sell the security and it is more likely than not that we will not be required to sell the security prior to recovery of its cost basis, the credit component of an OTTI of a debt security is recognized in earnings and the non-credit component is recognized in OCI.

The determination of whether a credit loss exists is based on the best estimate of the present value of cash flows to be collected from the debt security. Generally, cash flows are discounted at the effective interest rate implicit in the debt security at the time of acquisition. For debt securities that are beneficial interests in securitized financial assets and are not high credit quality, ASC 325, *Investments - Other,* provides that cash flows be discounted at the current yield used to accrete the beneficial interest.

If we intend to sell the security or it is more likely than not that we will be required to sell the security prior to recovery of its cost basis, the non-credit component of OTTI is recognized in earnings and subsequently accreted to interest income on an effective yield basis over the life of the security.

For held-to-maturity debt securities, the amount of OTTI recorded in OCI for the non-credit portion of a previous OTTI is amortized prospectively, as an increase to the carrying amount of the security, over the remaining life of the security on the basis of the timing of future estimated cash flows of the securities.

The accounting policies for the determination of the fair value of financial instruments and OTTI have been identified as "critical accounting estimates" as they require us to make numerous assumptions based on available market data. See Note 4 of the Notes to Consolidated Financial Statements for these disclosures.

Loans and leases

Loans are reported net of any unearned income and deferred fees and costs. Certain loan origination and upfront commitment fees, as well as certain direct loan origination and commitment costs, are deferred and amortized as a yield adjustment over the lives of the related loans. Loans held for sale are carried at the lower of cost or fair value.

Unearned revenue on direct financing leases is accreted over the lives of the leases in decreasing amounts to provide a constant rate of return on the net investment in the leases. Revenue on leveraged leases is recognized on a basis to achieve a constant yield on the outstanding investment in the lease, net of the related deferred tax liability, in the years in which the net investment is positive. Gains and losses on residual values of leased equipment sold are included in investment and other income. Impairment of leveraged lease residual values is reflected in net interest revenue. Considering the nature of these leases and the number of significant assumptions, there is risk associated with the income recognition on these leases should any of the assumptions change materially in future periods.

A modified loan is considered a troubled debt restructuring ("TDR") if the debtor is experiencing financial difficulties and the creditor grants a concession to the debtor that would not otherwise be considered. A TDR may include a transfer of real estate or other assets from the debtor to the creditor, or a modification of the term of the loan. TDRs are accounted for as impaired loans (see the Nonperforming assets policy).

Nonperforming assets

Commercial loans are placed on nonaccrual status when principal or interest is past due 90 days or more, or when there is reasonable doubt that interest or principal will be collected.

When a first lien residential mortgage loan reaches 90 days delinquent, it is subject to an impairment test and may be placed on nonaccrual status. At 180 days delinquent, the loan is subject to further impairment testing. The loan will remain on accrual status if the realizable value of the collateral exceeds the unpaid principal balance plus accrued interest. If the loan is impaired, a charge-off is taken and the loan is placed on nonaccrual status. At 270 days delinquent, all first lien mortgages are placed on nonaccrual status. Second lien mortgages are automatically placed on nonaccrual status when they reach 90 days delinquent.

When a loan is placed on nonaccrual status, previously accrued and uncollected interest is reversed against current period interest revenue. Interest receipts on nonaccrual and impaired loans are recognized as interest revenue or are applied to principal when we believe the ultimate collectability of principal is in doubt. Nonaccrual loans generally are restored to an accrual basis when principal and interest become current and remain current for a specified period.

A loan is considered to be impaired when it is probable that we will be unable to collect all principal and interest amounts due according to the contractual terms of the loan agreement. An impairment allowance is measured based upon the loan's market value, the present value of expected future cash flows, discounted at the loan's initial effective interest rate, or at fair value of the collateral if the loan is collateral dependent. If the loan valuation is less than the recorded value of the loan, an impairment allowance is established by a provision for credit loss. Impairment allowances are not needed when the recorded investment in an impaired loan is less than the loan valuation.

Allowance for loan losses and allowance for lending-related commitments

The allowance for loan losses, shown as a valuation allowance to loans, and the allowance for lending-related commitments recorded in other liabilities are referred to as BNY Mellon's allowance for credit losses. The accounting policy for the determination of the adequacy of the allowances has been identified as a "critical accounting estimate" as it requires us to make numerous complex and subjective estimates and assumptions relating to amounts which are inherently uncertain.

The allowance for loan losses is maintained to absorb losses inherent in the loan portfolio as of the balance sheet date based on our judgment. The allowance determination methodology is designed to provide procedural discipline in assessing the appropriateness of the allowance. Credit losses are charged against the allowance. Recoveries are added to the allowance.

The methodology for determining the allowance for lending-related commitments considers the same factors as the allowance for loan losses, as well as an estimate of the probability of drawdown at default. We utilize a quantitative methodology and qualitative framework for determining the allowance for loan losses and the allowance for lending-related commitments. Within this qualitative framework, management applies judgment when assessing internal risk factors and environmental factors to compute an additional allowance for each component of the loan portfolio.

The three elements of the allowance for loan losses and the allowance for lending-related commitments include the qualitative allowance framework. The three elements are:

- an allowance for impaired credits of $1 million or greater;
- an allowance for higher risk-rated credits and pass-rated credits; and
- an allowance for residential mortgage loans.

Our lending is primarily to institutional customers. As a result, our loans are generally larger than $1 million . Therefore, the first element, impaired credits, is based on individual analysis of all impaired loans of $1 million and greater. The allowance is measured by the difference between the recorded value of impaired loans and their impaired value. Impaired value is either the present value of the expected future cash flows from the borrower, the market value of the loan, or the fair value of the collateral, if the loan is collateral dependent.

The second element, higher risk-rated credits and pass-rated credits, is based on our incurred loss model. Individual credit analyses are performed on such loans before being assigned a credit rating. All borrowers are collectively evaluated based on their credit rating. The loss inherent in each loan incorporates the borrower's credit rating, facility rating and maturity. The loss given default, derived from the facility rating, incorporates a recovery expectation and an estimate of the use of the facility at default (usage given default). The borrower's probability of default is derived from the associated credit rating. Borrower ratings are reviewed at least annually and are periodically mapped to third-party databases, including rating agency and default and recovery databases, to ensure ongoing consistency and validity. Higher risk-rated credits are reviewed quarterly.

The third element, the allowance for residential mortgage loans, is determined by segregating six mortgage pools into delinquency periods ranging from current through foreclosure. Each of these delinquency periods is assigned a probability of default. A specific loss given default is assigned for each mortgage pool. BNY Mellon assigns all residential mortgage pools, except home equity lines of credit, a probability of default and loss given default based on default and loss data derived from internal historical data related to our residential mortgage portfolio. The resulting incurred loss factor (the probability of default multiplied by the loss given default) is applied against the loan balance to determine the allowance held for each pool. For home equity lines of credit, probability of default and loss given default are based on external data from third-party databases due to the small size of the portfolio and insufficient internal data.

The qualitative framework is used to determine an additional allowance for each portfolio based on the factors below:

Internal risk factors:

- Nonperforming loans to total non-margin loans;
- Criticized assets to total loans and lending-related commitments;
- Borrower concentration; and
- Significant concentrations in high risk industries and countries.

Environmental risk factors:

- U.S. non-investment grade default rate;
- Unemployment rate; and
- Change in real gross domestic product.

The objective of the qualitative framework is to capture incurred losses that may not have been fully captured in the quantitative reserve, which is based primarily on historical data. Management determines the qualitative allowance for each period based on judgment informed by consideration of internal and external risk factors and other considerations that may be deemed relevant during the period. Once determined in the aggregate, our qualitative allowance is then allocated to each of our loan classes based on the respective classes' quantitative allowance balances with the allocations adjusted, when necessary, for class specific risk factors.

For each risk factor, we calculate the minimum and maximum values, and percentiles in-between, to evaluate the distribution of our historical experience. The distribution of historical experience is compared to the risk factor's current quarter observed experience to assess the current risk inherent in the portfolio and overall direction/trend of a risk factor relative to our historical experience.

Based on this analysis, we assign a risk level - no impact, low, moderate, high and elevated - to each risk factor for the current quarter. Management assesses the impact of each risk factor to determine an aggregate risk level. We do not quantify the impact of any particular risk factor. Management's assessment of the risk factors, as well as the trend in the quantitative allowance, supports management's judgment for the overall required qualitative allowance. A smaller qualitative allowance may be required when our quantitative allowance has reflected incurred losses associated with the aggregate risk level. A greater qualitative allowance may be required if our quantitative allowance does not yet reflect the incurred losses associated with the aggregate risk level.

The allocation of the allowance for credit losses is inherently judgmental, and the entire allowance for credit losses is available to absorb credit losses regardless of the nature of the loss.

Premises and equipment

Premises and equipment are carried at cost less accumulated depreciation and amortization. Depreciation and amortization is computed using the straight-line method over the estimated useful life of the owned asset and, for leasehold improvements, over the lesser of the remaining term of the leased facility or the estimated economic life of the improvement. For owned and capitalized assets, estimated useful lives range from 2 to 40 years . Maintenance and repairs are charged to expense as incurred, while major improvements are capitalized and amortized to operating expense over their identified useful lives.

Software

BNY Mellon capitalizes costs relating to acquired software and internal-use software development projects that provide new or significantly improved functionality. We capitalize projects that are expected to result in longer-term operational benefits, such as replacement systems or new applications that result in significantly increased operational efficiencies or functionality. All other costs incurred in connection with an internal-use software project are expensed as incurred. Capitalized software is recorded in other assets.

Identified intangible assets and goodwill

Identified intangible assets with estimable lives are amortized in a pattern consistent with the assets' identifiable cash flows or using a straight-line method over their remaining estimated benefit periods if the pattern of cash flows is not estimable. Intangible assets with estimable lives are reviewed for possible impairment when events or changed circumstances may affect the underlying basis of the asset. Goodwill and intangibles with indefinite lives are not amortized, but are assessed annually for impairment, or more often if events and circumstances indicate it is more likely than not they may be impaired. Beginning in 2017, with the adoption of ASU 2017-04, the amount of goodwill impairment is determined by the excess of the carrying value of the reporting unit over its fair value. The accounting policy for valuing and impairment testing of identified intangible assets and goodwill has been identified as a "critical accounting estimate" as it requires us to make numerous complex and subjective estimates. See Note 6 of the Notes to Consolidated Financial Statements for additional disclosures related to goodwill and intangible assets.

Investments in qualified affordable housing projects

Investments in qualified affordable housing projects through a limited liability entity are accounted for utilizing the proportional amortization method. Under the proportional amortization method, the initial cost of the investment is amortized to the provision for income taxes in proportion to the tax credits and other tax benefits received. The net investment performance, including tax credits and other benefits received, is recognized in the income statement as a component of income tax expense. Additionally, the value of the commitments to fund qualified affordable housing projects is included in other assets on the balance sheet and a liability is recorded for the unfunded portion.

Seed capital

Seed capital investments are generally classified as other assets and carried at fair value. Unrealized gains and losses on seed capital investments are recorded in investment and other income. Certain risk retention investments in our collateralized loan obligations ("CLOs") are classified as available-for-sale securities. Any unrealized gains and losses are recorded net of tax, as an addition to or deduction from, other comprehensive income, unless the investment is deemed to have OTTI.

Noncontrolling interests

Noncontrolling interests included in permanent equity are adjusted for the income or (loss) attributable to the noncontrolling interest holders and any distributions to those shareholders. Redeemable noncontrolling interests are reported as temporary equity. BNY Mellon recognizes changes in the redemption value of the redeemable noncontrolling interests as they occur and adjusts the carrying value to be equal to the redemption value.

Fee revenue

We record investment services fees, investment management fees, foreign exchange and other trading revenue, financing-related fees, distribution and servicing, and other revenue when the services are provided and earned based on contractual terms, when amounts are determined and collectability is reasonably assured.

Additionally, we recognize revenue from non-refundable, upfront implementation fees under outsourcing contracts using a straight-line method, commencing in the period the ongoing services are performed through the expected term of the contractual relationship. Incremental direct set-up costs of implementation, up to the related implementation fee or minimum fee revenue amount, are deferred and amortized over the same period that the related implementation fees are recognized. If a client terminates an outsourcing contract prematurely, the unamortized deferred incremental direct set-up costs and the unamortized deferred up-front implementation fees related to that contract are recognized in the period the contract is terminated.

Performance fees are recognized in the period in which the performance fees are earned and become determinable. Performance fees are generally calculated as a percentage of the applicable portfolio's performance in excess of a benchmark index or a peer group's performance. When a portfolio underperforms its benchmark or fails to generate positive performance, subsequent years' performance must generally exceed this shortfall prior to fees being earned. Amounts billable, which are subject to a clawback if future performance thresholds in current or future years are not met, are not recognized since the fees are potentially uncollectible. These fees are recognized when it is determined that they will be collected. When a multi-year performance contract provides that fees earned are billed ratably over the performance period, only the portion of the fees earned that are non-refundable are recognized.

Net interest revenue

Revenue on interest-earning assets and expense on interest-bearing liabilities are recognized based on the effective yield of the related financial instrument. The amortization of premiums and accretion of discounts are included in interest revenue and are adjusted for prepayments when they occur, such that, the effective yield remains constant throughout the contractual life of the security. Negative interest incurred on assets or charged on liabilities is presented as contra interest income and contra expense, respectively.

Foreign currency translation

Assets and liabilities denominated in foreign currencies are translated to U.S. dollars at the rate of exchange on the balance sheet date. Transaction gains and losses are included in the income statement. Translation gains and losses on investments in foreign entities with functional currencies that are not the U.S. dollar are recorded as foreign currency translation adjustments in OCI. Revenue and expense transactions are translated at the applicable daily rate or the weighted average monthly exchange rate when applying the daily rate is not practical.

Pension

The measurement date for BNY Mellon's pension plans is Dec. 31. Plan assets are determined based on fair value generally representing observable market prices. The projected benefit obligation is determined based on the present value of projected benefit distributions at an assumed discount rate. The discount rate utilized is based on the yield curves of high-quality corporate bonds available in the marketplace. The net periodic pension expense or credit includes service costs (if applicable), interest costs based on an assumed discount rate, an expected return on plan assets based on an actuarially derived market-related value, amortization of prior service cost and amortization of prior years' actuarial gains and losses.

Actuarial gains and losses include gains or losses related to changes in the amount of the projected benefit obligation or plan assets resulting from demographic or investment experience different than assumed, changes in the discount rate or other assumptions. To the extent an actuarial gain or loss exceeds 10% of the greater of the projected benefit obligation or the market-related value of plan assets, the excess is generally recognized over the future service periods of active employees. Effective June 30, 2015, benefit accruals under the U.S. pension plans were frozen. Future unrecognized actuarial gains and losses for the U.S. plans that exceed a threshold amount are amortized over the average future life expectancy of plan participants with a maximum of 15 years .

Our expected long-term rate of return on plan assets is based on anticipated returns for each applicable asset class. Anticipated returns are weighted for the expected allocation for each asset class and are based on forecasts for prospective returns in the equity and fixed-income markets, which should track the long-term historical returns for these markets. We also consider the growth outlook for U.S. and global economies, as well as current and prospective interest rates.

The market-related value utilized to determine the expected return on plan assets is based on the fair value of plan assets adjusted for the difference between expected returns and actual performance of plan assets. The difference between actual experience and expected returns on plan assets is included as an adjustment in the market-related value over a five -year period.

BNY Mellon's accounting policy regarding pensions has been identified as a "critical accounting estimate" as it requires management to make numerous complex and subjective assumptions relating to amounts which are inherently uncertain. See Note 16 of the Notes to Consolidated Financial Statements for additional disclosures related to pensions.

Severance

BNY Mellon provides separation benefits for U.S.-based employees through The Bank of New York Mellon Corporation Supplemental Unemployment Benefit Plan. These benefits are provided to eligible employees separated from their jobs for business reasons not related to individual performance. Basic separation benefits are generally based on the employee's years of continuous benefited service. Severance for employees based outside of the U.S. is determined in accordance with local agreements and legal requirements. Severance expense is recorded when management commits to an action that will result in separation and the amount of the liability can be reasonably estimated.

Income taxes

We record current tax liabilities or assets through charges or credits to the current tax provision for the estimated taxes payable or refundable for the current year. Deferred tax assets and liabilities are recorded for future tax consequences attributable to differences between the financial statement carrying amounts of assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. A deferred tax valuation allowance is established if it is more likely than not that all or a portion of the deferred tax assets will not be realized. A tax position that fails to meet a more-likely-than-not recognition threshold will result in either reduction of current or deferred tax assets, and/or recording of current or deferred tax liabilities. Interest and penalties related to income taxes are recorded as income tax expense.

Derivative financial instruments

Derivatives are recorded on the balance sheet at fair value and include futures, forwards, interest rate swaps, foreign currency swaps and options and similar products. Derivatives in an unrealized gain position are recognized as assets while derivatives in unrealized loss position are recognized as liabilities. Derivatives are reported net by counterparty and after consideration of cash collateral, to the extent subject to legally enforceable netting agreements. Derivatives designated and effective in qualifying hedging relationships are classified in other assets or other liabilities on the balance sheet. All other derivatives are classified within trading assets or trading liabilities on the balance sheet. Gains and losses on trading derivatives are included in foreign exchange and other trading revenue.

We enter into various derivative financial instruments for non-trading purposes primarily as part of our asset/liability management process. These derivatives are designated as either fair value or cash flow hedges of certain assets and liabilities or forecasted transactions when we enter into the derivative contracts. Gains and losses associated with fair value hedges are recorded in income as well as any change in the value of the related hedged item associated with the designated risks being hedged. Gains and losses on cash flow hedges are recorded in OCI, until reclassified into earnings in the same period the hedged item impacts earnings. Foreign currency transaction gains and losses related to a hedged net investment in a foreign operation, net of their tax effect, are recorded with cumulative foreign currency translation adjustments within OCI.

We formally document all relationships between hedging instruments and hedged items, as well as our risk-management objectives and strategy for undertaking various hedging transactions.

We formally assess, both at the hedge's inception and on an ongoing basis, whether the derivatives that are used in hedging transactions are highly effective and whether those derivatives are expected to remain highly effective in future periods. At inception, the potential causes of ineffectiveness related to each of our hedges is assessed to determine if we can expect the hedge to be highly effective over the life of the transaction and to determine the method for evaluating effectiveness on an ongoing basis.

Quarterly, we perform a quantitative effectiveness assessment and record any ineffectiveness in current earnings.

We discontinue hedge accounting prospectively when we determine that a derivative is no longer an effective hedge or the derivative expires, is sold, or management discontinues the derivative's hedge designation. Subsequent gains and losses on these derivatives are included in foreign exchange and other trading revenue. For discontinued fair value hedges, the accumulated gain or loss on the hedged item is amortized on a yield basis over the remaining life of the hedged item. When we discontinue cash flow hedge accounting and it is probable that the amount in OCI at the de-designation date continues to be reported in OCI until the forecasted transaction affects earnings. If cash flow hedge accounting is discontinued as a result of a forecasted transaction no longer being probable, then the amount reported in OCI is immediately reclassified to current earnings in foreign exchange and other trading revenue.

The determination of fair value of derivative financial instruments has been identified as a "critical accounting estimate." See Note 21 of the Notes to Consolidated Financial Statements for additional disclosures related to derivative financial instruments.

Statement of cash flows

We have defined cash as cash and due from banks. Cash flows from hedging activities are classified in the same category as the items hedged.

Stock-based compensation

Compensation expense relating to share-based payments is recognized in the income statement, on a straight-line basis, over the applicable vesting period.

Certain of our stock compensation grants vest when the employee retires. New grants with this feature are expensed by the first date the employee is eligible to retire. We estimate forfeitures when recording compensation cost related to share-based payment awards.

Note 2 - Accounting change and new accounting guidance

ASU 2017-04, Simplifying the Test for Goodwill Impairment

In January 2017, the FASB issued ASU 2017-04, *Simplifying the Test for Goodwill Impairment* . This ASU simplifies the annual goodwill impairment test by eliminating Step 2. The Step 2 calculation estimated the implied goodwill using the fair values of all assets, including previously unrecorded intangibles, and liabilities at the date of the test. Step 2 was required if the first step of the annual test indicated that the fair value of a reporting unit is less than its carrying value. After adopting this ASU, the amount of any goodwill impairment will be determined by the excess of the carrying value of a reporting unit over its fair value. The Company early adopted this ASU in the second quarter of 2017, in conjunction with our annual goodwill impairment test. The annual test did not result in any impairment.

ASU 2016-09, Compensation – Stock Compensation

In March 2016, the FASB issued ASU 2016-09, *Compensation – Stock Compensation* . This ASU simplifies several aspects of the accounting for share-based payment transactions, including income tax consequences, recognition of forfeitures and classification on the statement of cash flows. The Company adopted this ASU effective Jan. 1, 2017.

In 2017, we recorded an income tax benefit of $50 million related to the vesting of stock awards and option exercises in the provision for income taxes. Previously, this had been recorded directly to additional paid-in capital. The impact in future periods will vary depending on the number of restricted stock units vesting (which primarily occurs in the first quarter of each year), the number of stock options exercised and the change in value since the grant date.

We continue to apply our accounting policy election for estimating forfeitures. Additionally, beginning in the quarter ended March 31, 2017, we reported excess tax benefits related to stock-based compensation as operating activities on the statement of cash flows and the employee taxes paid will continue to be reported as financing activities.

Note 3 - Acquisitions and dispositions

We sometimes structure our acquisitions with both an initial payment and later contingent payments tied to post-closing revenue or income growth. Contingent payments totaled $2 million in 2017 .

At Dec. 31, 2017 , we are potentially obligated to pay additional consideration which, using reasonable assumptions, could range from $0 million to $16 million over the next two years , but could be higher as certain of the arrangements do not contain a contractual maximum. The acquisitions and dispositions described below did not have a material impact on BNY Mellon’s results of operations.

Acquisition in 2016

On April 1, 2016 , BNY Mellon acquired the assets of Atherton Lane Advisers, LLC, a U.S.-based investment manager with approximately $2.45 billion in AUM and servicer for approximately 700 high-net-worth clients, for cash of $38 million , plus contingent payments measured at $22 million . Goodwill related to this acquisition totaled $29 million and is included in the Investment Management business. The customer relationship intangible asset related to this acquisition is included in the Investment Management business, with an estimated life of 14 years , and totaled $30 million at acquisition.

Acquisition in 2015

On Jan. 2, 2015, BNY Mellon acquired Cutwater Asset Management, a U.S.-based, fixed income and solutions specialist with approximately $23 billion in AUM.

Disposition in 2015

On July 31, 2015 , BNY Mellon sold Meriten Investment Management GmbH, a German-based investment management boutique, for $40 million . As a result of this sale, we recorded an after-tax loss of $12 million . Goodwill of $22 million and customer relationship intangible assets of $9 million were removed from the balance sheet as a result of this sale.

Note 4 - Securities

The following tables present the amortized cost, the gross unrealized gains and losses and the fair value of securities at Dec. 31, 2017 , Dec. 31, 2016 and Dec. 31, 2015, respectively.

Securities at Dec. 31, 2017

(in millions)	Amortized cost	Gross unrealized Gains	Gross unrealized Losses	Fair value
Available-for-sale:				
U.S. Treasury	$ 15,159	$ 264	$ 160	$ 15,263
U.S. government agencies	917	1	10	908
State and political subdivisions	2,949	31	23	2,957
Agency RMBS	24,002	108	291	23,819
Non-agency RMBS	454	36	3	487
Other RMBS	152	3	6	149
Commercial MBS	1,360	6	6	1,360
Agency commercial MBS	8,793	36	67	8,762
CLOs	2,898	12	1	2,909
Other asset-backed securities	1,040	3	—	1,043
Foreign covered bonds	2,520	18	9	2,529
Corporate bonds	1,249	17	11	1,255
Sovereign debt/sovereign guaranteed	12,405	175	23	12,557
Other debt securities	3,494	9	12	3,491
Money market funds	963	—	—	963
Non-agency RMBS *(a)*	811	281	1	1,091
Total securities available-for-sale *(b)*	$ 79,166	$ 1,000	$ 623	$ 79,543
Held-to-maturity:				
U.S. Treasury	$ 9,792	$ 6	$ 56	$ 9,742
U.S. government agencies	1,653	—	12	1,641
State and political subdivisions	17	—	1	16
Agency RMBS	26,208	51	332	25,927
Non-agency RMBS	57	5	—	62
Other RMBS	65	—	1	64
Commercial MBS	6	—	—	6
Agency commercial MBS	1,324	2	9	1,317
Foreign covered bonds	84	2	—	86
Sovereign debt/sovereign guaranteed	1,593	30	—	1,623
Other debt securities	28	—	—	28
Total securities held-to-maturity	$ 40,827	$ 96	$ 411	$ 40,512
Total securities	$ 119,993	$ 1,096	$ 1,034	$ 120,055

(a) Previously included in the Grantor Trust. The Grantor Trust was dissolved in 2011.
(b) Includes gross unrealized gains of $50 million and gross unrealized losses of $144 million recorded in accumulated other comprehensive income related to investment securities that were transferred from available-for-sale to held-to-maturity. The unrealized gains and losses are primarily related to Agency RMBS and will be amortized into net interest revenue over the contractual lives of the securities.

Securities at Dec. 31, 2016 (in millions)	Amortized cost	Gross unrealized Gains	Gross unrealized Losses	Fair value
Available-for-sale:				
U.S. Treasury	$ 14,373	$ 115	$ 181	$ 14,307
U.S. government agencies	366	2	9	359
State and political subdivisions	3,392	38	52	3,378
Agency RMBS	22,929	148	341	22,736
Non-agency RMBS	620	31	13	638
Other RMBS	517	4	8	513
Commercial MBS	931	8	11	928
Agency commercial MBS	6,505	28	84	6,449
CLOs	2,593	6	1	2,598
Other asset-backed securities	1,729	4	6	1,727
Foreign covered bonds	2,126	24	9	2,141
Corporate bonds	1,391	22	17	1,396
Sovereign debt/sovereign guaranteed	12,248	261	20	12,489
Other debt securities	1,952	19	10	1,961
Equity securities	2	1	—	3
Money market funds	842	—	—	842
Non-agency RMBS *(a)*	1,080	286	9	1,357
Total securities available-for-sale *(b)*	$ 73,596	$ 997	$ 771	$ 73,822
Held-to-maturity:				
U.S. Treasury	$ 11,117	$ 22	$ 41	$ 11,098
U.S. government agencies	1,589	—	6	1,583
State and political subdivisions	19		1	18
Agency RMBS	25,221	57	299	24,979
Non-agency RMBS	78	4	2	80
Other RMBS	142	—	4	138
Commercial MBS	7	—	—	7
Agency commercial MBS	721	1	10	712
Foreign covered bonds	74	1	—	75
Sovereign debt/sovereign guaranteed	1,911	42	—	1,953
Other debt securities	26	—	—	26
Total securities held-to-maturity	$ 40,905	$ 127	$ 363	$ 40,669
Total securities	$ 114,501	$ 1,124	$ 1,134	$ 114,491

(a) *Previously included in the Grantor Trust. The Grantor Trust was dissolved in 2011.*
(b) *Includes gross unrealized gains of $62 million and gross unrealized losses of $190 million recorded in accumulated other comprehensive income related to investment securities that were transferred from available-for-sale to held-to-maturity. The unrealized gains and losses are primarily related to Agency RMBS and will be amortized into net interest revenue over the contractual lives of the securities.*

Securities at Dec. 31, 2015 (in millions)	Amortized cost	Gross unrealized Gains	Gross unrealized Losses	Fair value
Available-for-sale:				
U.S. Treasury	$ 12,693	$ 175	$ 36	$ 12,832
U.S. government agencies	386	2	1	387
State and political subdivisions	3,968	91	13	4,046
Agency RMBS	23,549	239	287	23,501
Non-agency RMBS	782	31	20	793
Other RMBS	1,072	10	21	1,061
Commercial MBS	1,400	8	16	1,392
Agency commercial MBS	4,031	24	35	4,020
CLOs	2,363	1	13	2,351
Other asset-backed securities	2,909	1	17	2,893
Foreign covered bonds	2,125	46	3	2,168
Corporate bonds	1,740	26	14	1,752
Sovereign debt/sovereign guaranteed	13,036	211	30	13,217
Other debt securities	2,732	46	3	2,775
Equity securities	3	1	—	4
Money market funds	886	—	—	886
Non-agency RMBS *(a)*	1,435	362	8	1,789
Total securities available-for-sale *(b)*	$ 75,110	$ 1,274	$ 517	$ 75,867
Held-to-maturity:				
U.S. Treasury	$ 11,326	$ 25	$ 51	$ 11,300
U.S. government agencies	1,431	—	6	1,425
State and political subdivisions	20		1	19
Agency RMBS	26,036	134	205	25,965
Non-agency RMBS	118	5	2	121
Other RMBS	224	1	10	215
Commercial MBS	9	—	—	9
Agency commercial MBS	503	—	9	494
Foreign covered bonds	76	—	—	76
Sovereign debt/sovereign guaranteed	3,538	22	11	3,549
Other debt securities	31	—	—	31
Total securities held-to-maturity	$ 43,312	$ 187	$ 295	$ 43,204
Total securities	$ 118,422	$ 1,461	$ 812	$ 119,071

(a) *Previously included in the Grantor Trust. The Grantor Trust was dissolved in 2011.*
(b) *Includes gross unrealized gains of $84 million and gross unrealized losses of $248 million recorded in accumulated other comprehensive income related to investment securities that were transferred from available-for-sale to held-to-maturity. The unrealized gains and losses are primarily related to Agency RMBS and will be amortized into net interest revenue over the contractual lives of the securities.*

The following table presents the realized gains, losses and impairments, on a gross basis.

Net securities gains (losses) *(in millions)*	**2017**	2016	2015
Realized gross gains	**$ 47**	$ 86	$ 90
Realized gross losses	**(40)**	(4)	(2)
Recognized gross impairments	**(4)**	(7)	(5)
Total net securities gains	**$ 3**	$ 75	$ 83

In 2017, other RMBS with an aggregate amortized cost of $74 million and fair value of $76 million were transferred from held-to-maturity securities to available-for-sale securities. Due to recent ratings downgrades, the Company no longer intends to hold these securities to maturity.

In 2015, Agency MBS, sovereign debt and U.S. Treasury securities with an aggregate amortized cost of $11.6 billion and fair value of $11.6 billion were transferred from available-for-sale securities to held-to-maturity securities. Additionally, in 2013, Agency RMBS securities with an amortized cost of $7.3 billion and fair value of $7.0 billion were transferred from available-for-sale securities to held-to-maturity securities. These actions, in addition to realizing gains on the sales of securities, are expected to mute the impact to our accumulated other comprehensive income in the event of a rise in interest rates.

Temporarily impaired securities

At Dec. 31, 2017 , the unrealized losses on the investment securities portfolio were primarily attributable to an increase in interest rates from date of purchase, and for certain securities that were transferred from available-for-sale to held-to-maturity, an increase in interest rates through the date they were transferred. Specifically, $144 million of the unrealized losses at Dec. 31, 2017 and $190 million at Dec. 31, 2016 reflected in the available-for-sale sections of the tables below relate to certain securities (primarily Agency RMBS) that were transferred in prior periods from available-for-sale to held-to-maturity. The unrealized losses will be amortized into net interest revenue over the contractual lives of the securities. The transfer created a new cost basis for the securities. As a result, if these securities have experienced unrealized losses since the date of transfer, the corresponding fair value and unrealized losses would be reflected in the held-to-maturity sections of the following tables. We do not intend to sell these securities and it is not more likely than not that we will have to sell these securities.

The following tables show the aggregate fair value of investments with a continuous unrealized loss position for less than 12 months and those that have been in a continuous unrealized loss position for 12 months or more at Dec. 31, 2017 and Dec. 31, 2016 , respectively.

Temporarily impaired securities at Dec. 31, 2017 *(in millions)*	Less than 12 months Fair value	Less than 12 months Unrealized losses	12 months or more Fair value	12 months or more Unrealized losses	Total Fair value	Total Unrealized losses
Available-for-sale:						
U.S. Treasury	**$ 7,429**	**$ 131**	**$ 2,175**	**$ 29**	**$ 9,604**	**$ 160**
U.S. government agencies	**588**	**6**	**160**	**4**	**748**	**10**
State and political subdivisions	**732**	**3**	**518**	**20**	**1,250**	**23**
Agency RMBS	**8,567**	**66**	**5,834**	**225**	**14,401**	**291**
Non-agency RMBS	**13**	**—**	**137**	**3**	**150**	**3**
Other RMBS	**71**	**4**	**45**	**2**	**116**	**6**
Commercial MBS	**476**	**3**	**122**	**3**	**598**	**6**
Agency commercial MBS	**3,077**	**28**	**1,332**	**39**	**4,409**	**67**
CLOs	**260**	**1**	**—**	**—**	**260**	**1**
Foreign covered bonds	**953**	**7**	**116**	**2**	**1,069**	**9**
Corporate bonds	**274**	**2**	**288**	**9**	**562**	**11**
Sovereign debt/sovereign guaranteed	**1,880**	**12**	**559**	**11**	**2,439**	**23**
Other debt securities	**1,855**	**7**	**368**	**5**	**2,223**	**12**
Non-agency RMBS *(a)*	**7**	**—**	**12**	**1**	**19**	**1**
Total securities available-for-sale *(b)*	**$ 26,182**	**$ 270**	**$ 11,666**	**$ 353**	**$ 37,848**	**$ 623**
Held-to-maturity:						
U.S. Treasury	**$ 6,389**	**$ 41**	**$ 2,909**	**$ 15**	**$ 9,298**	**$ 56**
U.S. government agencies	**791**	**4**	**850**	**8**	**1,641**	**12**
State and political subdivisions	**—**	**—**	**4**	**1**	**4**	**1**
Agency RMBS	**9,458**	**81**	**12,305**	**251**	**21,763**	**332**
Other RMBS	**—**	**—**	**50**	**1**	**50**	**1**
Agency commercial MBS	**737**	**7**	**60**	**2**	**797**	**9**
Total securities held-to-maturity	**$ 17,375**	**$ 133**	**$ 16,178**	**$ 278**	**$ 33,553**	**$ 411**
Total temporarily impaired securities	**$ 43,557**	**$ 403**	**$ 27,844**	**$ 631**	**$ 71,401**	**$ 1,034**

(a) Previously included in the Grantor Trust. The Grantor Trust was dissolved in 2011.
(b) Includes gross unrealized losses for 12 months or more of $144 million recorded in accumulated other comprehensive income related to investment securities that were transferred from available-for-sale to held-to-maturity. The unrealized losses are primarily related to Agency RMBS and will be amortized into net interest revenue over the contractual lives of the securities. There were no gross unrealized losses for less than 12 months.

Temporarily impaired securities at Dec. 31, 2016 *(in millions)*	Less than 12 months		12 months or more		Total	
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
Available-for-sale:						
U.S. Treasury	$ 8,489	$ 181	$ —	$ —	$ 8,489	$ 181
U.S. government agencies	257	9	—	—	257	9
State and political subdivisions	1,058	33	131	19	1,189	52
Agency RMBS	14,766	141	1,673	200	16,439	341
Non-agency RMBS	21	—	332	13	353	13
Other RMBS	26	—	136	8	162	8
Commercial MBS	302	7	163	4	465	11
Agency commercial MBS	3,570	78	589	6	4,159	84
CLOs	443	1	404	—	847	1
Other asset-backed securities	276	1	357	5	633	6
Foreign covered bonds	712	9	—	—	712	9
Corporate bonds	594	16	7	1	601	17
Sovereign debt/sovereign guaranteed	1,521	20	63	—	1,584	20
Other debt securities	742	10	50	—	792	10
Non-agency RMBS *(a)*	25	—	47	9	72	9
Total securities available-for-sale *(b)*	$ 32,802	$ 506	$ 3,952	$ 265	$ 36,754	$ 771
Held-to-maturity:						
U.S. Treasury	$ 6,112	$ 41	$ —	$ —	$ 6,112	$ 41
U.S. government agencies	1,533	6	—	—	1,533	6
State and political subdivisions	—	—	4	1	4	1
Agency RMBS	19,498	297	102	2	19,600	299
Non-agency RMBS	4	—	48	2	52	2
Other RMBS	15	—	123	4	138	4
Agency commercial MBS	621	10	—	—	621	10
Total securities held-to-maturity	$ 27,783	$ 354	$ 277	$ 9	$ 28,060	$ 363
Total temporarily impaired securities	$ 60,585	$ 860	$ 4,229	$ 274	$ 64,814	$ 1,134

(a) *Previously included in the Grantor Trust. The Grantor Trust was dissolved in 2011.*
(b) *Includes gross unrealized losses for 12 months or more of $190 million recorded in accumulated other comprehensive income related to investment securities that were transferred from available-for-sale to held-to-maturity. The unrealized losses are primarily related to Agency RMBS and will be amortized into net interest revenue over the contractual lives of the securities. There were no gross unrealized losses for less than 12 months.*

The following table shows the maturity distribution by carrying amount and yield (on a tax equivalent basis) of our investment securities portfolio.

Maturity distribution and yield on investment securities at Dec. 31, 2017	U.S. Treasury		U.S. government agencies		State and political subdivisions		Other bonds, notes and debentures		Mortgage/ asset-backed and equity securities		
(dollars in millions)	Amount	Yield *(a)*	Amount	Yield *(a)*	Amount	Yield *(a)*	Amount	Yield *(a)*	Amount	Yield *(a)*	Total
Securities available-for-sale:											
One year or less	$ 1,862	1.05%	$ —	—%	$ 395	2.54%	$ 4,524	1.00%	$ —	—%	**$ 6,781**
Over 1 through 5 years	7,048	1.75	263	1.75	1,567	3.20	12,414	0.99	—	—	**21,292**
Over 5 through 10 years	2,809	2.03	645	2.51	793	3.22	2,693	0.81	—	—	**6,940**
Over 10 years	3,544	3.11	—	—	202	2.55	201	1.64	—	—	**3,947**
Mortgage-backed securities	—	—	—	—	—	—	—	—	35,668	2.88	**35,668**
Asset-backed securities									3,952	2.41	**3,952**
Equity securities *(b)*	—	—	—	—	—	—	—	—	963	—	**963**
Total	$ 15,263	2.03%	$ 908	2.29%	$ 2,957	3.07%	$ 19,832	0.98%	$ 40,583	2.77%	**$ 79,543**
Securities held-to-maturity:											
One year or less	$ 5,064	0.97%	$ 531	1.07%	$ —	—%	$ 710	0.60%	$ —	—%	**$ 6,305**

Over 1 through 5 years	3,321	1.71	1,122	1.62	2	6.89	457	0.46	—	—	**4,902**
Over 5 through 10 years	1,407	1.92	—	—	1	6.84	538	0.85	—	—	**1,946**
Over 10 years	—	—	—	—	14	5.32	—	—	—	—	**14**
Mortgage-backed securities	—	—	—	—	—	—	—	—	27,660	2.80	**27,660**
Total	$ 9,792	1.36%	$ 1,653	1.45%	$ 17	5.63%	$ 1,705	0.64%	$ 27,660	2.80%	**$ 40,827**

(a) Yields are based upon the amortized cost of securities.
(b) Includes money market funds.

Other-than-temporary impairment

We conduct periodic reviews of all securities to determine whether OTTI has occurred. Such reviews may incorporate the use of economic models. Various inputs to the economic models are used to determine if an unrealized loss on securities is other-than-temporary. For example, the most significant inputs related to non-agency RMBS are:

- Default rate - the number of mortgage loans expected to go into default over the life of the transaction, which is driven by the roll rate of loans in each performance bucket that will ultimately migrate to default; and
- Severity - the loss expected to be realized when a loan defaults.

To determine if an unrealized loss is other-than-temporary, we project total estimated defaults of the underlying assets (mortgages) and multiply that calculated amount by an estimate of realizable value upon sale of these assets in the marketplace (severity) in order to determine the projected collateral loss. In determining estimated default rate and severity assumptions, we review the performance of the underlying securities, industry studies and market forecasts, as well as our view of the economic outlook affecting collateral. We also evaluate the current credit enhancement underlying the bond to determine the impact on cash flows. If we determine that a given security will be subject to a write-down or loss, we record the expected credit loss as a charge to earnings.

The table below shows the projected weighted-average default rates and loss severities for the 2007, 2006 and late 2005 non-agency RMBS and the securities previously held in the Grantor Trust that we established in connection with the restructuring of our investment securities portfolio in 2009, at Dec. 31, 2017 and Dec. 31, 2016 . See Note 18 for carrying values of these securities.

Projected weighted-average default rates and loss severities				
	Dec. 31, 2017		Dec. 31, 2016	
	Default rate	**Severity**	Default rate	Severity
Alt-A	**22%**	**53%**	30%	54%
Subprime	**38%**	**66%**	49%	70%
Prime	**13%**	**39%**	18%	39%

The following table presents pre-tax net securities gains (losses) by type.

Net securities gains (losses) *(in millions)*	**2017**	2016	2015
Non-agency RMBS	**$ 4**	$ 8	$ 7
Foreign covered bonds	**—**	10	2
Agency RMBS	**(12)**	22	10
U.S. Treasury	**(16)**	4	45
Other	**27**	31	19
Total net securities gains	**$ 3**	$ 75	$ 83

The following table reflects investment securities credit losses recorded in earnings. The beginning balance represents the credit loss component for which OTTI occurred on debt securities in prior periods. The additions represent the first time a debt security was credit impaired or when subsequent credit impairments have occurred. The deductions represent credit losses on securities that have been sold, are required to be sold, or for which it is our intention to sell.

Debt securities credit loss roll forward *(in millions)*	**2017**	2016
Beginning balance as of Jan. 1	**$ 88**	$ 91
Add: Initial OTTI credit losses	**—**	
Subsequent OTTI credit losses	**4**	7
Less: Realized losses for securities sold	**8**	10
Ending balance as of Dec. 31	**$ 84**	$ 88

Pledged assets

At Dec. 31, 2017 , BNY Mellon had pledged assets of $111 billion , including $92 billion pledged as collateral for potential borrowings at the Federal Reserve Discount Window and $5 billion pledged as collateral for borrowing at the Federal Home Loan Bank. The components of the assets pledged at Dec. 31, 2017 included $96 billion of securities, $13 billion of loans and $2 billion of trading assets.

If there has been no borrowing at the Federal Reserve Discount Window, the Federal Reserve generally allows banks to freely move assets in and out of their pledged assets account to sell or repledge the assets for other purposes. BNY Mellon regularly moves assets in and out of its pledged assets account at the Federal Reserve.

At Dec. 31, 2016 , BNY Mellon had pledged assets of $102 billion , including $84 billion pledged as collateral for potential borrowing at the Federal

Reserve Discount Window. The components of the assets pledged at Dec. 31, 2016 included $87 billion of securities, $8 billion of loans, $4 billion of interest-bearing deposits with banks and $3 billion of trading assets.

At Dec. 31, 2017 and Dec. 31, 2016 , pledged assets included $10 billion and $6 billion , respectively, for which the recipients were permitted to sell or repledge the assets delivered.

We also obtain securities as collateral, including receipts under resale agreements, securities borrowed, derivative contracts and custody agreements on terms which permit us to sell or repledge the securities to others. At Dec. 31, 2017 and Dec. 31, 2016 , the market value of the securities received that can be sold or repledged was $86 billion and $50 billion , respectively. We routinely sell or repledge these securities through delivery to third parties. As of Dec. 31, 2017 and Dec. 31, 2016 , the market value of securities collateral sold or repledged was $49 billion and $20 billion , respectively.

Restricted cash and securities

Cash and securities may also be segregated under federal and other regulations or requirements. At Dec. 31, 2017 and Dec. 31, 2016 , cash segregated under federal and other regulations or requirements was $2 billion and $3 billion , respectively. Restricted cash is included in interest-bearing deposits with banks on the consolidated balance sheet. Securities segregated for these purposes were $1 billion at Dec. 31, 2017 and $2 billion at Dec. 31, 2016 . Restricted securities were sourced from securities purchased under resale agreements at Dec. 31, 2017 and Dec. 31, 2016 and are included in federal funds sold and securities purchased under resale agreements on the consolidated balance sheet.

Note 5 - Loans and asset quality

Loans

The table below provides the details of our loan portfolio and industry concentrations of credit risk at Dec. 31, 2017 and Dec. 31, 2016 .

Loans	Dec. 31,	
(in millions)	**2017**	2016
Domestic:		
Commercial	**$ 2,744**	$ 2,286
Commercial real estate	**4,900**	4,639
Financial institutions	**5,568**	6,342
Lease financings	**772**	989
Wealth management loans and mortgages	**16,420**	15,555
Other residential mortgages	**708**	854
Overdrafts	**963**	1,055
Other	**1,131**	1,202
Margin loans	**15,689**	17,503
Total domestic	**48,895**	50,425
Foreign:		
Commercial	**167**	331
Commercial real estate	**—**	15
Financial institutions	**7,483**	8,347
Lease financings	**527**	736
Wealth management loans and mortgages	**108**	99
Other (primarily overdrafts)	**4,264**	4,418
Margin loans	**96**	87
Total foreign	**12,645**	14,033
Total loans *(a)*	**$ 61,540**	$ 64,458

(a) Net of unearned income of $394 million at Dec. 31, 2017 and $527 million at Dec. 31, 2016 primarily related to domestic and foreign lease financings.

Our loan portfolio consists of three portfolio segments: commercial, lease financings and mortgages. We manage our portfolio at the class level which consists of six classes of financing receivables: commercial, commercial real estate, financial institutions, lease financings, wealth management loans and mortgages, and other residential mortgages.

The following tables are presented for each class of financing receivable and provide additional information about our credit risks and the adequacy of our allowance for credit losses.

Allowance for credit losses

Transactions in the allowance for credit losses are summarized as follows.

Allowance for credit losses activity for the year ended Dec. 31, 2017 *(in millions)*		Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans and mortgages	Other residential mortgages	All other		Foreign	Total
Beginning balance	$	82 $	73 $	26 $	13 $	23 $	28 $	—	$	36 $	281
Charge-offs		—	—	—	—	—	(1)	—		—	(1)
Recoveries		—	—	—	—	—	5	—		—	5
Net recoveries		—	—	—	—	—	4	—		—	4
Provision		(5)	3	(3)	(5)	(1)	(12)	—		(1)	(24)
Ending balance	**$**	**77 $**	**76 $**	**23 $**	**8 $**	**22 $**	**20 $**	**—**	**$**	**35 $**	**261**
Allowance for:											
Loan losses	$	24 $	58 $	7 $	8 $	18 $	20 $	—	$	24 $	159
Lending-related commitments		53	18	16	—	4	—	—		11	102
Individually evaluated for impairment:											
Loan balance	$	— $	— $	1 $	— $	5 $	— $	—	$	— $	6
Allowance for loan losses		—	—	—	—	1	—	—		—	1
Collectively evaluated for impairment:											
Loan balance	$	2,744 $	4,900 $	5,567 $	772 $	16,415 $		708 $	17,783 *(a)* $	12,645 $	61,534
Allowance for loan losses		24	58	7	8	17	20	—		24	158

(a) Includes $963 million of domestic overdrafts, $15,689 million of margin loans and $1,131 million of other loans at Dec. 31, 2017 .

Allowance for credit losses activity for the year ended Dec. 31, 2016

(in millions)		Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans and mortgages	Other residential mortgages	All other		Foreign	Total
Beginning balance									$	82 $	59
Charge-offs										—	—
Recoveries		—	—	13	—	—	5	—		1	19
Net recoveries		—	—	13	—	—	3	—		1	17
Provision		—	14	(18)	(2)	4	(9)	—		—	(11)
Ending balance	$	82 $	73 $	26 $	13 $	23 $	28 $	—	$	36 $	281
Allowance for:											
Loan losses	$	25 $	52 $	8 $	13 $	19 $	28 $	—	$	24 $	169
Lending-related commitments		57	21	18	—	4	—	—		12	112
Individually evaluated for impairment:											
Loan balance	$	— $	— $	— $	4 $	5 $	— $	—	$	— $	9
Allowance for loan losses		—	—	—	2	3	—	—		—	5
Collectively evaluated for impairment:											
Loan balance	$	2,286 $	4,639 $	6,342 $	985 $	15,550 $		854 $	19,760 *(a)* $	14,033 $	64,449
Allowance for loan losses		25	52	8	11	16	28	—		24	164

(a) Includes $1,055 million of domestic overdrafts, $17,503 million of margin loans and $1,202 million of other loans at Dec. 31, 2016 .

Allowance for credit losses activity for the year ended Dec. 31, 2015 *(in millions)*	Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans and mortgages	Other residential mortgages	All other	Foreign	Total
Beginning balance	$ 60	$ 50	$ 31	$ 32	$ 22	$ 41	$ —	$ 44	$ 280
Charge-offs	—	—	(170)	—	—	(2)	—	—	(172)
Recoveries	—	—	1	—	—	6	—	—	7
Net (charge-offs) recoveries	—	—	(169)	—	—	4	—	—	(165)
Provision	22	9	169	(17)	(3)	(11)	—	(9)	160
Ending balance	$ 82	$ 59	$ 31	$ 15	$ 19	$ 34	$ —	$ 35	$ 275
Allowance for:									
Loan losses	$ 24	$ 37	$ 9	$ 15	$ 15	$ 34	$ —	$ 23	$ 157
Lending-related commitments	58	22	22	—	4	—	—	12	118
Individually evaluated for impairment:									
Loan balance	$ —	$ 1	$ 171	$ —	$ 8	$ —	$ —	$ —	$ 180
Allowance for loan losses	—	1	—	—	1	—	—	—	2
Collectively evaluated for impairment:									
Loan balance	$ 2,115	$ 3,496	$ 6,469	$ 1,007	$ 13,239	$ 1,035	$ 21,388 *(a)*	$ 14,352	$ 63,101
Allowance for loan losses	24	36	9	15	14	34	—	23	155

(a) Includes $911 million of domestic overdrafts, $19,340 million of margin loans and $1,137 million of other loans at Dec. 31, 2015.

Nonperforming assets

The table below presents our nonperforming assets.

Nonperforming assets *(in millions)*	Dec. 31, **2017**	2016
Nonperforming loans:		
Other residential mortgages	**$ 78**	$ 91
Wealth management loans and mortgages	**7**	8
Commercial real estate	**1**	—
Lease financings	**—**	4
Total nonperforming loans	**86**	103
Other assets owned	**4**	4
Total nonperforming assets	**$ 90**	$ 107

At Dec. 31, 2017 , undrawn commitments to borrowers whose loans were classified as nonaccrual or reduced rate were not material.

Lost interest

The table below presents the amount of lost interest income.

Lost interest *(in millions)*	**2017**	2016	2015
Amount by which interest income recognized on nonperforming loans exceeded reversals			
Total	**$ —**	$ —	$ —
Foreign	**—**	—	—
Amount by which interest income would have increased if nonperforming loans at year-end had been performing for the entire year			
Total	**$ 5**	$ 6	$ 6
Foreign	—	—	—

Impaired loans

The tables below present information about our impaired loans. We use the discounted cash flow method as the primary method for valuing impaired loans.

Impaired loans	**2017**		2016		2015	
(in millions)	Average recorded investment	Interest income recognized	Average recorded investment	Interest income recognized	Average recorded investment	Interest income recognized
Impaired loans with an allowance:						
Commercial real estate	**$ —**	**$ —**	$ 1	$ —	$ 1	$ —
Financial institutions	**1**	**—**	—	—	—	—
Wealth management loans and mortgages	**2**	**—**	5	—	6	—
Lease financings	**1**	**—**	3	—	—	—
Total impaired loans with an allowance	**4**	**—**	9	—	7	—
Impaired loans without an allowance:						
Commercial real estate	—	—	1	—	—	—
Financial institutions	—	—	102	—	—	—
Wealth management loans and mortgages	**3**	**—**	2	—	2	—
Total impaired loans without an allowance *(a)*	**3**	—	105	—	2	
Total impaired loans	**$ 7**	**$ —**	$ 114	$ —	$ 9	$

(a) When the discounted cash flows, collateral value or market price equals or exceeds the carrying value of the loan, then the loan does not require an allowance under the accounting standard related to impaired loans.

Impaired loans	**Dec. 31, 2017**			Dec. 31, 2016		
(in millions)	Recorded investment	Unpaid principal balance	Related allowance *(a)*	Recorded investment	Unpaid principal balance	Related allowance *(a)*
Impaired loans with an allowance:						
Commercial real estate	**$ —**	**$ 3**	**$ —**	$ —	$ 3	$
Financial institutions	**1**	**1**	**—**	—	—	—
Wealth management loans and mortgages	**1**	**1**	**1**	3	3	3
Lease financings	**—**	**—**	**—**	4	4	2
Total impaired loans with an allowance	**2**	**5**	**1**	7	10	5
Impaired loans without an allowance :						
Wealth management loans and mortgages	**4**	**4**	**N/A**	2	2	N/A
Total impaired loans without an allowance *(b)*	**4**	**4**	**N/A**	2	2	N/A
Total impaired loans *(c)*	**$ 6**	**$ 9**	**$ 1**	$ 9	$ 12	$ 5

(a) The allowance for impaired loans is included in the allowance for loan losses.
(b) When the discounted cash flows, collateral value or market price equals or exceeds the carrying value of the loan, then the loan does not require an allowance under the accounting standard related to impaired loans.
(c) Excludes an aggregate of less than $1 million of impaired loans in amounts individually less than $1 million at both Dec. 31, 2017 and Dec. 31, 2016 , respectively. The allowance for loan losses associated with these loans totaled less than $1 million at both Dec. 31, 2017 and Dec. 31, 2016 , respectively.

Past due loans

The table below presents our past due loans.

Past due loans and still accruing interest	**Dec. 31, 2017**				Dec. 31, 2016			
	Days past due			Total	Days past due			Total
(in millions)	30-59	60-89	?90	past due	30-59	60-89	?90	past due
Commercial real estate	**$ 44**	**$ —**	**$ —**	**$ 44**	$ 78	$ —	$ —	$ 78
Wealth management loans and mortgages	**39**	**5**	**—**	**44**	21	2	—	23

Other residential mortgages	**18**	**5**	**5**	**28**	20	6	7	33
Financial institutions	**1**	**—**	**—**	**1**	1	27	—	28
Total past due loans	**$ 102 $**	**10 $**	**5 $**	**117** $	120 $	35 $	7 $	162

Troubled debt restructurings ("TDRs")

A modified loan is considered a TDR if the debtor is experiencing financial difficulties and the creditor grants a concession to the debtor that would not

otherwise be considered. A TDR may include a transfer of real estate or other assets from the debtor to the creditor, or a modification of the term of the loan. Not all modified loans are considered TDRs.

The following table presents our TDRs.

TDRs	**2017**			2016		
		Outstanding recorded investment			Outstanding recorded investment	
(dollars in millions)	Number of contracts	Pre-modification	Post-modification	Number of contracts	Pre-modification	Post-modification
Other residential mortgages	**50**	**$ 13**	**$ 14**	70	$ 14	$ 16
Wealth management loans and mortgages	**2**	**6**	**6**	2		
Total TDRs	**52**	**$ 19**	**$ 20**	72	$ 14	$ 16

Other residential mortgages

The modifications of the other residential mortgage loans in 2017 and 2016 consisted of reducing the stated interest rates and, in certain cases, a forbearance of default and extending the maturity dates. The modified loans are primarily collateral dependent for which the value is based on the fair value of the collateral.

TDRs that subsequently defaulted

There were 20 residential mortgage loans and two wealth management loans that had been restructured

in a TDR during the previous 12 months and have subsequently defaulted in 2017 . The total recorded investment of these loans was $5 million .

Credit quality indicators

Our credit strategy is to focus on investment grade clients that are active users of our non-credit services. Each customer is assigned an internal credit rating, which is mapped to an external rating agency grade equivalent, if possible, based upon a number of dimensions, which are continually evaluated and may change over time.

The following tables present information about credit quality indicators.

Commercial loan portfolio

Commercial loan portfolio – Credit risk profile by creditworthiness category	Commercial		Commercial real estate		Financial ins
(in millions)	**Dec. 31, 2017**	Dec. 31, 2016	**Dec. 31, 2017**	Dec. 31, 2016	**Dec. 31, 2017**
Investment grade	**$ 2,685**	$ 2,397	**$ 4,277**	$ 3,823	**$ 10,021** $
Non-investment grade	**226**	220	**623**	831	**3,030**
Total	**$ 2,911**	$ 2,617	**$ 4,900**	$ 4,654	**$ 13,051** $

The commercial loan portfolio is divided into investment grade and non-investment grade categories based on rating criteria largely consistent with those of the public rating agencies. Each customer in the portfolio is assigned an internal credit rating. These internal credit ratings are generally consistent with the ratings categories of the public rating agencies. Customers with ratings consistent with BBB- (S&P)/Baa3 (Moody's) or better are

considered to be investment grade. Those clients with ratings lower than this threshold are considered to be non-investment grade.

Wealth management loans and mortgages

Wealth management loans and mortgages – Credit risk profile by internally assigned grade *(in millions)*	**Dec. 31, 2017**	Dec. 31, 2016
Wealth management loans:		
Investment grade	**$ 7,042**	$ 7,127
Non-investment grade	**185**	260
Wealth management mortgages	**9,301**	8,267
Total	**$ 16,528**	$ 15,654

Wealth management non-mortgage loans are not typically rated by external rating agencies. A majority of the wealth management loans are secured by the customers' investment management accounts or custody accounts. Eligible assets pledged for these loans are typically investment grade fixed-income securities, equities and/or mutual funds. Internal ratings for this portion of the wealth management portfolio, therefore, would equate to investment grade external ratings. Wealth management loans are provided to select customers based on the pledge of other types of assets, including business assets, fixed assets or a modest amount of commercial real estate. For the loans collateralized by other assets, the credit quality of the obligor is carefully analyzed, but we do not consider this portfolio of loans to be investment grade.

Credit quality indicators for wealth management mortgages are not correlated to external ratings. Wealth management mortgages are typically loans to high-net-worth individuals, which are secured primarily by residential property. These loans are primarily interest-only, adjustable rate mortgages with a weighted-average loan-to-value ratio of 62% at origination. In the wealth management portfolio, less than 1% of the mortgages were past due at Dec. 31, 2017 .

At Dec. 31, 2017 , the wealth management mortgage portfolio consisted of the following geographic concentrations: California - 24% ; New York - 18% ; Massachusetts - 11% ; Florida - 8% ; and other - 39% .

Other residential mortgages

The other residential mortgage portfolio primarily consists of 1-4 family residential mortgage loans and totaled $ 708 million at Dec. 31, 2017 and $854 million at Dec. 31, 2016 . These loans are not typically correlated to external ratings. Included in this portfolio at Dec. 31, 2017 are $171 million of mortgage loans purchased in 2005, 2006 and the first quarter of 2007 that are predominantly prime mortgage loans, with a small portion of Alt-A loans. As of Dec. 31, 2017 , the purchased loans in this portfolio had a weighted-average loan-to-value ratio of 76% at origination and 12% of the serviced loan balance was at least 60 days delinquent. The properties securing the prime and Alt-A mortgage loans were located (in order of concentration) in California, Florida, Virginia, the tri-state area (New York, New Jersey and Connecticut) and Maryland.

Overdrafts

Overdrafts primarily relate to custody and securities clearance clients and totaled $5.1 billion at Dec. 31, 2017 and $5.5 billion at Dec. 31, 2016 . Overdrafts occur on a daily basis primarily in the custody and securities clearance business and are generally repaid within two business days.

Other loans

Other loans primarily include loans to consumers that are fully collateralized with equities, mutual funds and fixed-income securities.

Margin loans

We had $15.8 billion of secured margin loans on our balance sheet at Dec. 31, 2017 compared with $17.6 billion at Dec. 31, 2016 . Margin loans are collateralized with marketable securities, and borrowers are required to maintain a daily collateral margin in excess of 100% of the value of the loan. We have rarely suffered a loss on these types of loans and do not allocate any of our allowance for credit losses to margin loans.

Reverse repurchase agreements

Reverse repurchase agreements are transactions fully collateralized with high-quality liquid securities. These transactions carry minimal credit risk and therefore are not allocated an allowance for credit losses.

Note 6 - Goodwill and intangible assets

Goodwill

The table below provides a breakdown of goodwill by business.

Goodwill by business *(in millions)*	Investment Management	Investment Services *(a)*	Other *(a)*	Consolidated
Balance at Dec. 31, 2015	$ 9,207	$ 8,366	$ 45	$ 17,618
Acquisition (dispositions)	29	(2)		27
Foreign currency translation	(238)	(91)	—	(329)
Other *(b)*	2	(4)	2	—
Balance at Dec. 31, 2016	$ 9,000	$ 8,269	$ 47	$ 17,316
Foreign currency translation	128	120	—	248
Balance at Dec. 31, 2017	**$ 9,128**	**$ 8,389**	**$ 47**	**$ 17,564**

(a) Includes the reclassification of goodwill associated with credit-related activities from the Other segment to Investment Services in 2016.
(b) Other changes in goodwill include purchase price adjustments and certain other reclassifications.

Total goodwill increased in 2017 compared with 2016 reflecting the impact of foreign exchange translation on non-U.S. dollar denominated goodwill.

Intangible assets

The table below provides a breakdown of intangible assets by business.

Intangible assets – net carrying amount by business *(in millions)*	Investment Management	Investment Services	Other	Consolidated
Balance at Dec. 31, 2015	$ 1,807	$ 1,186	$ 849	$ 3,842
Acquisitions	30	2	—	32
Amortization *(a)*	(82)	(155)	—	(237)
Foreign currency translation	(38)	(1)		(39)
Balance at Dec. 31, 2016	$ 1,717	$ 1,032	$ 849	$ 3,598
Amortization	(60)	(149)	—	(209)
Foreign currency translation	17	5	—	22
Balance at Dec. 31, 2017	**$ 1,674**	**$ 888**	**$ 849**	**$ 3,411**

(a) Includes $6 million of impairment charges related to the write-down of intangible assets in the Investment Management business, to their respective fair values.

Intangible assets decreased in 2017 compared with 2016 primarily reflecting amortization. Amortization of intangible assets was $209 million in 2017 , $237 million in 2016 and $261 million in 2015 .

The table below provides a breakdown of intangible assets by type.

Intangible assets *(in millions)*	**Dec. 31, 2017** Gross carrying amount	Accumulated amortization	Net carrying amount	Remaining weighted-average amortization period	Dec. 31, 2016 Gross carrying amount	Accumulated amortization	Net carrying amount
Subject to amortization: *(a)*							
Customer relationships—Investment Management	**$ 1,262**	**$ (1,015)**	**$ 247**	**11 years**	$ 1,439	$ (1,136)	$ 303
Customer contracts—Investment Services	**2,260**	**(1,744)**	**516**	**10 years**	2,249	(1,590)	659
Other	**42**	**(23)**	**19**	**5 years**	37	(33)	4
Total subject to amortization	**3,564**	**(2,782)**	**782**	**10 years**	3,725	(2,759)	966
Not subject to amortization: *(b)*							
Tradenames	**1,334**	**N/A**	**1,334**	**N/A**	1,348	N/A	1,348
Customer relationships	**1,295**	**N/A**	**1,295**	**N/A**	1,284	N/A	1,284
Total not subject to amortization	**2,629**	**N/A**	**2,629**	**N/A**	2,632	N/A	2,632
Total intangible assets	**$ 6,193**	**$ (2,782)**	**$ 3,411**	**N/A**	$ 6,357	$ (2,759)	$ 3,598

(a) Excludes fully amortized intangible assets.
(b) Intangible assets not subject to amortization have an indefinite life.

Estimated annual amortization expense for current intangibles for the next five years is as follows:

For the year ended Dec. 31,	Estimated amortization expense *(in millions)*
2018	**$ 180**
2019	**116**
2020	**102**
2021	**79**
2022	**60**

Impairment testing

The goodwill impairment test is performed at least annually at the reporting unit level. Intangible assets not subject to amortization are tested for impairment annually or more often if events or circumstances indicate they may be impaired.

BNY Mellon's three business segments include eight reporting units for which goodwill impairment testing is performed on an annual basis. The Investment Management segment consists of two reporting units. The Investment Services segment consists of five reporting units. One reporting unit is included in the Other segment. In the second quarter of 2017, BNY Mellon conducted an annual goodwill impairment test on all eight reporting units. As a result of the annual goodwill impairment test of the eight reporting units, no goodwill impairment was recognized.

Note 7 - Other assets

The following table provides the components of other assets presented on the consolidated balance sheet.

Other assets *(in millions)*	**Dec. 31, 2017**	2016
Corporate/bank-owned life insurance	**$ 4,857**	$ 4,789
Accounts receivable	**4,590**	4,060
Fails to deliver	**2,817**	1,732
Income taxes receivable	**1,533**	1,172
Software	**1,499**	1,451
Prepaid pension assets	**1,416**	836
Renewable energy investments	**1,368**	1,282
Equity in a joint venture and other investments	**1,083**	1,063
Qualified affordable housing project investments	**1,014**	914
Federal Reserve Bank stock	**477**	466
Prepaid expense	**395**	438
Fair value of hedging derivatives	**323**	784
Due from customers on acceptances	**319**	340
Seed capital	**288**	395
Other *(a)*	**1,050**	1,232
Total other assets	**$ 23,029**	$ 20,954

(a) At Dec. 31, 2017 , other assets include $82 million of Federal Home Loan Bank stock, at cost.

Qualified affordable housing project investments

We invest in affordable housing projects primarily to satisfy the Company's requirements under the Community Reinvestment Act. Our total investment in qualified affordable housing projects totaled $1.0 billion at Dec. 31, 2017 and $914 million at Dec. 31, 2016 .

Commitments to fund future investments in qualified affordable housing projects totaled $486 million at Dec. 31, 2017 and $369 million at Dec. 31, 2016 and is recorded in other liabilities. A summary of the commitments to fund future investments is as follows: 2018 – $200 million ; 2019 – $119 million ; 2020 – $107 million ; 2021 – $42 million ; 2022 – $1 million ; and 2023 and thereafter – $17 million .

Tax credits and other tax benefits recognized were $156 million in 2017 , $155 million in 2016 and $130 million in 2015 .

Amortization expense included in the provision for income taxes was $153 million in 2017 , $115 million in 2016 and $99 million in 2015 .

Certain seed capital and private equity investments valued using net asset value per share

In our Investment Management business, we manage investment assets, including equities, fixed income, money market and multi-asset and alternative investment funds for institutions and other investors. As part of that activity, we make seed capital investments in certain funds. BNY Mellon also holds private equity investments, specifically in SBICs, which are compliant with the Volcker Rule. Seed capital and private equity investments are generally included in other assets on the consolidated balance sheet. Certain risk retention investments in our CLOs are classified as available-for-sale securities on the consolidated balance sheet.

The fair value of certain of these investments has been estimated using the NAV per share of BNY Mellon's ownership interest in the funds. The table below presents information about our investments in seed capital and private equity investments that have been valued using NAV.

Seed capital and private equity investments valued using NAY

	Dec. 31, 2017				Dec. 31, 2016			
(dollar amounts in millions)	Fair value	Unfunded commitments	Redemption frequency	Redemption notice period	Fair value	Unfunded commitments	Redemption frequency	Redemption notice period
Seed capital and other funds *(a)*	**$ 99**	**$ 1**	**Daily-quarterly**	**1-95 days**	$ 171	$ 1	Daily-quarterly	1-180 days
Private equity investments (SBICs) *(b)*	**55**	**42**	**N/A**	**N/A**	43	46	N/A	N/A
Total	**$ 154**	**$ 43**			$ 214	$ 47		

(a) Other funds include various hedge funds, leveraged loans and structured credit funds. Redemption notice periods vary by fund.
(b) Private equity investments primarily include Volcker Rule-compliant investments in SBICs that invest in various sectors of the economy. Private equity investments do not have redemption rights. Distributions from such investments will be received as the underlying investments in the private equity investments, which have a life of 10 years, are liquidated.

Note 8 - Deposits

Total time deposits in denominations of $100,000 or greater was $38.1 billion at Dec. 31, 2017 , and $38.9 billion at Dec. 31, 2016 . At Dec. 31, 2017 , the scheduled maturities of all time deposits are as follows: 2018 – $40 billion ; 2019 – $1 million ; 2020 – $1 million ; 2021 – $- million; 2022 – $- million; and 2023 and thereafter – $- million.

Note 9 - Net interest revenue

The following table provides the components of net interest revenue presented on the consolidated income statement.

Net interest revenue	Year ended Dec. 31,		
(in millions)	**2017**	2016	2015
Interest revenue			
Non-margin loans	**$ 1,077**	$ 873	$ 727
Margin loans	**343**	265	207
Securities:			
Taxable	**1,977**	1,772	1,813
Exempt from federal income taxes	**64**	70	82
Total securities	**2,041**	1,842	1,895
Deposits with banks	**120**	104	104
Deposits with the Federal Reserve and other central banks	**319**	198	170
Federal funds sold and securities purchased under resale agreements	**423**	233	147
Trading assets	**59**	60	76
Total interest revenue	**4,382**	3,575	3,326
Interest expense			
Deposits in domestic offices	**107**	41	30
Deposits in foreign offices	**55**	(25)	7
Federal funds purchased and securities sold under repurchase agreements	**225**	36	(6)
Trading liabilities	**7**	6	9
Other borrowed funds	**26**	8	9
Commercial paper	**29**	5	2
Customer payables	**64**	12	7
Long-term debt	**561**	354	242
Total interest expense	**1,074**	437	300
Net interest revenue	**3,308**	3,138	3,026
Provision for credit losses	**(24)**	(11)	160
Net interest revenue after provision for credit losses	**$ 3,332**	$ 3,149	$ 2,866

Note 10 - Income taxes

The components of the income tax provision are as follows:

Provision for income taxes	Year ended Dec. 31,		
(in millions)	**2017**	2016	2015
Current taxes (benefits):			
Federal	**$ (99)**	$ 823	$ 551
Foreign	**388**	327	306
State and local	**74**	153	109
Total current tax expense	**363**	1,303	966
Deferred tax expense (benefit):			
Federal	**36**	(75)	114
Foreign	**14**	(14)	(1)
State and local	**83**	(37)	(66)
Total deferred tax expense (benefit)	**133**	(126)	47

Due to the timing of the enactment and the complexity involved in applying the provisions of the U.S. tax legislation, we have calculated a reasonable estimate and recorded a provisional benefit of $710 million . The provisional benefit is based on a number of estimates and assumptions, including but not limited to our interpretation of the U.S. tax legislation and analysis of foreign earnings and profits. The provisional amount may change, possibly materially, based on additional guidance or analysis of the U.S. tax legislation and final foreign earnings and profits. In addition the filing of our 2017 income tax returns could impact the remeasurement of our deferred tax assets and liabilities; we expect to complete our analysis in the second half of 2018.

Income tax (benefit) expense	
(estimated in millions)	**2017**
Remeasurement of net deferred tax liabilities	$ (1,472)
Repatriation tax	723
Other items	39
Net income tax (benefit)	$ (710)

The components of income before taxes are as follows:

Income before taxes	Year ended Dec. 31,		
(in millions)	**2017**	2016	2015
Domestic	**$ 2,699**	$ 3,147	$ 2,698
Foreign	**1,911**	1,578	1,537
Income before taxes	**$ 4,610**	$ 4,725	$ 4,235

The components of our net deferred tax liability are as follows:

Net deferred tax liability	Dec. 31,	
(in millions)	**2017**	2016
Depreciation and amortization	**$ 1,960**	$ 2,694
Repatriation	**617**	—
Lease financings	**151**	391
Pension obligation	**283**	184
Renewable energy investment	**278**	179
Equity investments	**65**	104
Employee benefits	**(287)**	(471)
Reserves not deducted for tax	**(103)**	(136)
Credit losses on loans	**(55)**	0
Securities valuation	**11**	(55)
Other assets	**(85)**	0
Other liabilities	**186**	162
Net deferred tax liability	**$ 3,021**	$ 2,851

Provision for income taxes	**$ 496**	$ 1,177	$ 1,013

As of Dec. 31, 2017 , we have an available German net operating loss carryforward of $145 million with an indefinite life. We believe it is more likely than not that we will fully realize our deferred tax assets.

The U.S. tax legislation provides a one-time deemed repatriation tax on undistributed foreign earnings and profits (“repatriation tax”). In 2017, we recorded $723 million provisional repatriation tax. Management continues to evaluate the impact of the U.S. tax legislation on its foreign earnings and related repatriation tax. As of Dec. 31, 2017 , we had approximately $200 million of earnings attributable to foreign subsidiaries that have been permanently reinvested abroad and for which no local distribution tax provision has been recorded. If these earnings were to be repatriated, the estimated tax liability as of Dec. 31, 2017 would be up to $40 million . The amount of foreign earnings considered permanently reinvested may change once our analysis is completed in the second half of 2018.

The statutory federal income tax rate is reconciled to our effective income tax rate below:

Effective tax rate	Year ended Dec. 31,		
	2017	2016	2015
Federal rate	**35.0 %**	35.0 %	35.0 %
State and local income taxes, net of federal income tax benefit	**1.8**	1.6	0.6
Foreign operations	**(4.2)**	(5.6)	(6.6)
Tax credits	**(3.7)**	(2.2)	(1.4)
Tax-exempt income	**(1.9)**	(1.8)	(2.5)
Leverage lease adjustment	**(1.4)**	(0.9)	(1.3)
Stock compensation	**(1.1)**		
U.S. tax legislation	**(13.3)**		
Other – net	**(0.4)**	(1.2)	0.1
Effective tax rate	**10.8 %**	24.9 %	23.9 %

Unrecognized tax positions *(in millions)*	**2017**	2016	2015
Beginning balance at Jan. 1, – gross	**$ 146**	$ 649	$ 669
Prior period tax positions:			
Increases	**20**	8	13
Decreases	**(4)**	(40)	(21)
Current period tax positions	**10**	16	14
Settlements	**(44)**	(477)	(26)
Statute expiration	**—**	(10)	
Ending balance at Dec. 31, – gross	**$ 128**	$ 146	$ 649

Our total tax reserves as of Dec. 31, 2017 were $128 million compared with $146 million at Dec. 31, 2016 . If these tax reserves were unnecessary, $128 million would affect the effective tax rate in future periods. We recognize accrued interest and penalties, if applicable, related to income taxes in income tax expense. Included in the balance sheet at Dec. 31, 2017 is accrued interest, where applicable, of $17 million . The additional tax expense related to interest for the year ended Dec. 31, 2017 was $12 million , compared with $2 million for the year ended Dec. 31, 2016 .

It is reasonably possible the total reserve for uncertain tax positions could decrease within the next 12 months by approximately $7 million as a result of adjustments related to tax years that are still subject to examination.

Our federal income tax returns are closed to examination through 2013. Our New York State, New York City and UK income tax returns are closed to examination through 2012.

Note 11 - Long-term debt

Long-term debt	**Dec. 31, 2017**			Dec. 31, 2016	
(in millions)	**Rate**	**Maturity**	**Amount**	Rate	Amount
Senior debt:					
Fixed rate	**1.30 - 5.45%**	**2018 - 2028**	**$ 23,329**	1.30 - 5.94%	$ 20,005
Floating rate	**1.49 - 2.74%**	**2018 - 2038**	**2,829**	0.80 - 2.05%	2,828
Subordinated debt *(a)*	**3.00 - 7.50%**	**2018 - 2029**	**1,821**	3.00 - 7.50%	1,383
Junior subordinated debentures *(b)*	**N/A**	**N/A**	**—**	1.87%	247
Total			**$ 27,979**		$ 24,463

(a) Fixed rate.
(b) Floating rate at Dec. 31, 2016 .

Total long-term debt maturing during the next five years for BNY Mellon is as follows: 2018 – $3.7 billion , 2019 – $4.3 billion , 2020 – $4.0 billion , 2021 – $4.3 billion and 2022 – $1.3 billion .

Trust-preferred securities

On March 20, 2017, all outstanding outstanding trust preferred securities issued by Mellon Capital III were redeemed. The redemption price for the trust preferred securities was equal to the par value plus interest accrued up to and excluding March 20, 2017. There were no trust-preferred securities outstanding at Dec. 31, 2017. At Dec. 31, 2016, trust-preferred securities outstanding were $247 million .

Note 12 - Variable interest entities and securitization

BNY Mellon has variable interests in VIEs, which include investments in retail, institutional and alternative investment funds, including CLO structures in which we provide asset management services, some of which are consolidated. The investment funds are offered to our retail and institutional clients to provide them with access to investment vehicles with specific investment objectives and strategies that address the client’s investment needs.

BNY Mellon earns management fees from these funds as well as performance fees in certain funds and may also provide start-up capital for its new funds. The funds are primarily financed by our customers’ investments in the funds’ equity or debt.

Additionally, BNY Mellon invests in qualified affordable housing and renewable energy projects, which are designed to generate a return primarily through the realization of tax credits by the Company. The projects, which are structured as limited partnerships and LLCs, are also VIEs, but are not consolidated.

The VIEs previously discussed are included in the scope of ASU 2015-02 and are reviewed for consolidation based on the guidance in ASC 810, *Consolidation* . We reconsider and reassess whether or not we are the primary beneficiary of a VIE when governing documents or contractual arrangements are changed that would reallocate the obligation to absorb expected losses or receive expected residual returns between BNY Mellon and the other investors. This could occur when BNY Mellon disposes of its variable interests in the fund, when additional variable interests are issued to other investors or when we acquire additional variable interests in the VIE.

The following table presents the incremental assets and liabilities included in BNY Mellon’s consolidated financial statements, after applying intercompany eliminations, as of Dec. 31, 2017 and Dec. 31, 2016 . The net assets of any consolidated VIE are solely available to settle the liabilities of the VIE and to settle any investors’ ownership liquidation requests, including any seed capital invested in the VIE by BNY Mellon.

Consolidated investments

	Dec. 31, 2017			Dec. 31, 2016		
(in millions)	Investment Management funds	Securitization	Total consolidated investments	Investment Management funds	Securitization	Total consolidated investments
Securities - Available-for-sale	**$ —**	**$ 400**	**$ 400**	$ —	$ 400	$ 400
Trading assets	**516**	**—**	**516**	979	—	979
Other assets	**215**	**—**	**215**	252	—	252
Total assets	**$ 731** *(a)*	**$ 400**	**$ 1,131**	$ 1,231 *(b)*	$ 400	$ 1,631
Trading liabilities	**$ —**	**$ —**	**$ —**	$ 282	$ —	$ 282
Other liabilities	**2**	**367**	**369**	33	363	396
Total liabilities	**$ 2** *(a)*	**$ 367**	**$ 369**	$ 315 *(b)*	$ 363	$ 678
Nonredeemable noncontrolling interests	**$ 316** *(a)*	**$ —**	**$ 316**	$ 618 *(b)*	$ —	$ 618

(a) Includes VMEs with assets of $84 million , liabilities of $1 million and nonredeemable noncontrolling interests of $1 million .
(b) Includes VMEs with assets of $114 million , liabilities of $3 million and nonredeemable noncontrolling interests of $25 million .

BNY Mellon has not provided financial or other support that was not otherwise contractually required to be provided to our VIEs. Additionally, creditors of any consolidated VIEs do not have any recourse to the general credit of BNY Mellon.

Non-consolidated VIEs

As of Dec. 31, 2017 and Dec. 31, 2016 , the following assets and liabilities related to the VIEs where BNY Mellon is not the primary beneficiary are included in our consolidated financial statements and primarily relate to accounting for our investments in qualified affordable housing and renewable energy projects.

Non-consolidated VIEs

	Dec. 31, 2017			Dec. 31, 2016		
(in millions)	Assets	Liabilities	Maximum loss exposure	Assets	Liabilities	Maximum loss exposure
Securities - Available-for-sale *(a)*	**$ 203**	**$ —**	**$ 203**	$ 42	$ —	$ 42
Other	**2,592**	**486**	**3,078**	2,400	369	2,769

(a) Investments in the Company's sponsored CLOs.

The maximum loss exposure indicated in the above table relates solely to BNY Mellon's investments in, and unfunded commitments to, the VIEs.

Note 13 - Shareholders' equity

Common stock

BNY Mellon has 3.5 billion authorized shares of common stock with a par value of $0.01 per share. At Dec. 31, 2017 , 1,013,442,445 shares of common stock were outstanding.

Common stock repurchase program

On June 29, 2016, in connection with the Federal Reserve's non-objection to our 2016 capital plan, BNY Mellon announced a new stock purchase program providing for the repurchase of an aggregate of $2.7 billion of common stock. The 2016 capital plan began in the third quarter of 2016 and continued through the second quarter of 2017. On June 28, 2017, in connection with the Federal Reserve's non-objection to our 2017 capital plan, BNY Mellon announced a share repurchase plan providing for the repurchase of up to $2.6 billion of common stock. The 2017 capital plan began in the third quarter of 2017 and continues through the second quarter of 2018. This new share repurchase plan replaces all previously authorized share repurchase plans.

Share repurchases may be executed through repurchase plans designed to comply with Rule 10b5-1 and through derivative, accelerated share repurchase and other structured transactions. In 2017 , we repurchased 54.5 million common shares at an average price of $49.28 per common share for a total of $2.7 billion . At Dec. 31, 2017 , the maximum dollar value of shares that may yet be purchased under the June 28, 2017 program, including employee benefit plan repurchases, totaled $1.3 billion .

Preferred stock

BNY Mellon has 100 million authorized shares of preferred stock with a par value of $0.01 per share. The following table summarizes BNY Mellon's preferred stock issued and outstanding at Dec. 31, 2017 and Dec. 31, 2016 .

Preferred stock	**summary** *(a)*	**Total shares issued and outstanding**		**Carrying value** *(b)* *(in millions)*	
	Per annum dividend rate	**Dec. 31, 2017**	Dec. 31, 2016	**Dec. 31, 2017**	Dec. 31, 2016
Series A *(c)*	Greater of (i) three-month LIBOR plus 0.565% for the related distribution period; or (ii) 4.000%	**5,001**	5,001	**$ 500**	$ 500
Series C	5.2%	**5,825**	5,825	**568**	568
Series D	4.50% to but excluding June 20, 2023, then a floating rate equal to the three-month LIBOR plus 2.46%	**5,000**	5,000	**494**	494
Series E	4.95% to and including June 20, 2020, then a floating rate equal to the three-month LIBOR plus 3.42%	**10,000**	10,000	**990**	990
Series F	4.625% to and including Sept. 20, 2026, then a floating rate equal to the three-month LIBOR plus 3.131%	**10,000**	10,000	**990**	990
Total		**35,826**	35,826	**$ 3,542**	$ 3,542

(a) All outstanding preferred stock is noncumulative perpetual preferred stock with a liquidation preference of $100,000 per share.
(b) The carrying value of the Series C, Series D, Series E and Series F preferred stock is recorded net of issuance costs.
(c) Series A preferred stock is the sole asset of Mellon Capital IV, a Delaware statutory trust owned by BNY Mellon Capital IV.

Holders of both the Series A and Series C preferred stock are entitled to receive dividends on each dividend payment date (March 20, June 20, September 20 and December 20 of each year), if declared by BNY Mellon's Board of Directors. Holders of the Series D preferred stock are entitled to receive dividends, if declared by BNY Mellon's Board of Directors, on each June 20 and December 20, to but excluding June 20, 2023; and on each March 20, June 20, September 20 and December 20, from and including June 20, 2023. Holders of the Series E preferred stock are entitled to receive dividends, if declared by BNY Mellon's Board of Directors, on each June 20 and December 20, to and including June 20, 2020; and on each March 20, June 20, September 20 and December 20, from and including September 20, 2020. Holders of the Series F preferred stock are entitled to receive dividends, if declared by BNY Mellon's Board of Directors, on each March 20 and September 20, commencing March 20, 2017, to and including Sept. 20, 2026; and on each March 20, June 20, September 20 and December 20, commencing Dec. 20, 2026. BNY Mellon's ability to declare or pay dividends on, or purchase, redeem or otherwise acquire, shares of our common stock or any of our shares that rank junior to the preferred stock as to the payment of dividends and/or the distribution of any assets on any liquidation, dissolution or winding-up of BNY Mellon will be prohibited, subject to certain restrictions, in the event that we do not declare and pay in full preferred dividends for the then current dividend period of the Series A preferred stock or the last preceding dividend period of the Series C, Series D, Series E and Series F preferred stock.

All of the outstanding shares of the Series A preferred stock are owned by Mellon Capital IV, which will pass through any dividend on the Series A preferred stock to the holders of its Normal Preferred Capital Securities. All of the outstanding shares of the Series C, Series D, Series E and Series F preferred stock are held by the depositary of the depositary shares, which will pass through the applicable portion of any dividend on the Series C, Series D, Series E and Series F preferred stock to the holders of record of their respective depositary shares.

On Dec. 20, 2017, The Bank of New York Mellon Corporation paid the following dividends for the noncumulative perpetual preferred stock for the dividend period ending in December 2017 to holders of record as of the close of business on Dec. 5, 2017:

- $1,011.11 per share on the Series A Preferred Stock (equivalent to $10.1111 per Normal Preferred Capital Security of Mellon Capital IV, each representing a 1/100th interest in a share of the Series A Preferred Stock);

- $1,300.00 per share on the Series C Preferred Stock (equivalent to $0.3250 per depositary share, each representing a 1/4,000th interest in a share of the Series C Preferred Stock);
- $2,250.00 per share on the Series D Preferred Stock (equivalent to $22.5000 per depositary share, each representing a 1/100th interest in a share of the Series D Preferred Stock); and
- $2,475.00 per share on the Series E Preferred Stock (equivalent to $24.7500 per depositary share, each representing a 1/100th interest in a share of the Series E Preferred Stock).

The preferred stock is not subject to the operation of a sinking fund and is not convertible into, or exchangeable for, shares of our common stock or any other class or series of our other securities. We may redeem the Series A or Series C preferred stock, in whole or in part, at our option. We may also, at our option, redeem the shares of the Series D preferred stock, in whole or in part, on or after the dividend payment date in June 2023, the Series E preferred stock, in whole or in part, on or after the dividend payment date in June 2020, and the Series F preferred stock, in whole or in part, on or after the dividend payment date in September 2026. The Series C, Series D, Series E or Series F preferred stock can be redeemed, in whole but not in part, at any time within 90 days following a regulatory capital treatment event (as defined in each of the Series C, Series D, Series E and Series F's Certificates of Designation). Redemption of the preferred stock is subject to the prior approval of the Federal Reserve.

Terms of the Series A, Series C, Series D, Series E and Series F preferred stock are more fully described in each of their Certificates of Designations, each of which is filed as an Exhibit to BNY Mellon's Annual Report on Form 10-K for the year ended Dec. 31, 2017.

Temporary equity

Temporary equity was $179 million at Dec. 31, 2017 and $151 million at Dec. 31, 2016 . Temporary equity represents amounts recorded for redeemable noncontrolling interests resulting from equity-classified share-based payment arrangements that are currently redeemable or are expected to become redeemable. The current redemption value of such awards is classified as temporary equity and is adjusted to its redemption value at each balance sheet date.

Capital adequacy

Regulators establish certain levels of capital for BHCs and banks, including BNY Mellon and our bank subsidiaries, in accordance with established quantitative measurements. For the Parent to maintain its status as a FHC, our bank subsidiaries and BNY Mellon must, among other things, qualify as "well capitalized."

As of Dec. 31, 2017 and Dec. 31, 2016 , BNY Mellon and our U.S. bank subsidiaries were "well capitalized."

Our consolidated and largest bank subsidiary, The Bank of New York Mellon, regulatory capital ratios are shown below.

Consolidated and largest bank subsidiary regulatory capital ratios *(a)*	**Dec. 31, 2017**	2016
Consolidated regulatory capital ratios:		
CET1	**10.7%**	10.6%
Tier 1 capital ratio	**12.7**	12.6
Total (Tier 1 plus Tier 2) capital ratio	**13.4**	13.0
Leverage capital ratio	**6.6**	6.6
The Bank of New York Mellon regulatory capital ratios:		
CET1	**14.1%**	13.6%
Tier 1 capital ratio	**14.4**	13.9
Total (Tier 1 plus Tier 2) capital ratio	**14.7**	14.2
Leverage capital ratio	**7.6**	7.2

(a) For our CET1, Tier 1 and Total capital ratios, our effective capital ratios under U.S. capital rules are the lower of the ratios as calculated under the Standardized and Advanced Approaches. The leverage capital ratio is based on Tier 1 capital, as phased-in and quarterly average total assets. For BNY Mellon to qualify as "well capitalized," its Tier 1 and Total (Tier 1 plus Tier 2) capital ratios must be at least 6% and 10% , respectively. For The Bank of New York Mellon, our largest bank subsidiary, to qualify as "well capitalized," its CET1, Tier 1, Total and leverage capital ratios must be at least 6.5% , 8% , 10% and 5% , respectively.

Failure to satisfy regulatory standards, including "well capitalized" status or capital adequacy rules more generally, could result in limitations on our activities and adversely affect our financial condition. If a BHC such as BNY Mellon or bank such as The Bank of New York Mellon or BNY Mellon, N.A. fails to qualify as "adequately capitalized," regulatory sanctions and limitations are imposed.

The following table presents the components of our transitional CET1, Tier 1 and Tier 2 capital, the risk-weighted assets determined under the Standardized and Advanced Approaches and the average assets used for leverage capital purposes.

Components of transitional capital *(a)* *(in millions)*	Dec. 31, 2017	2016
CET1:		
Common shareholders' equity	**$ 37,859**	$ 35,794
Goodwill and intangible assets	**(18,684)**	(17,314)
Net pension fund assets	**(169)**	(55)
Equity method investments	**(372)**	(313)
Deferred tax assets	**(33)**	(19)
Other	**(8)**	
Total CET1	**18,593**	18,093
Other Tier 1 capital:		
Preferred stock	**3,542**	3,542
Disallowed deferred tax assets	**(8)**	(13)
Net pension fund assets	**(42)**	(36)
Other	**(41)**	(121)
Total Tier 1 capital	**$ 22,044**	$ 21,465
Tier 2 capital:		
Subordinated debt	**$ 1,250**	$ 550
Allowance for credit losses	**261**	281
Trust preferred securities	**—**	148
Other	**(12)**	(12)
Total Tier 2 capital – Standardized Approach	**1,499**	967
Excess of expected credit losses	**31**	50
Less: Allowance for credit losses	**261**	281
Total Tier 2 capital – Advanced Approach	**$ 1,269**	$ 736
Standardized Approach	**$ 23,543**	$ 22,432
Advanced Approach	**$ 23,313**	$ 22,201
Risk-weighted assets:		
Standardized Approach	**$ 155,621**	$ 147,671
Advanced Approach:		
Credit Risk	**$ 101,681**	$ 97,659
Market Risk	**3,657**	2,836
Operational Risk	**68,688**	70,000
Total Advanced Approach	**$ 174,026**	$ 170,495
Average assets for leverage capital purposes	**$ 331,600**	$ 326,809

(a) Reflects transitional adjustments to CET1, Tier 1 capital and Tier 2 capital required in 2017 and 2016 under the U.S. capital rules.

The following table presents the amount of capital by which BNY Mellon and our largest bank subsidiary, The Bank of New York Mellon, exceeded the capital thresholds determined under the transitional rules.

Capital above thresholds at Dec. 31, 2017 *(in millions)*	**Consolidated**		**The Bank of New York Mellon** *(b)*
CET1	$ 7,281	*(a)*	$ 10,848
Tier 1 capital	8,122	*(a)*	9,112
Total capital	5,910	*(b)*	6,717
Leverage capital	8,780	*(a)*	7,001

(a) Based on minimum required standards, with applicable buffers.
(b) Based on well capitalized standards.

Note 14 - Other comprehensive income (loss)

Components of other comprehensive income (loss)	Year ended Dec. 31,								
	2017			2016			2015		
(in millions)	Pre-tax amount	Tax (expense) benefit	After-tax amount	Pre-tax amount	Tax (expense) benefit	After-tax amount	Pre-tax amount	Tax (expense) benefit	After-tax amount
Foreign currency translation:									
Foreign currency translation adjustments arising during the period *(a)*	**$ 659**	**$ 194**	**$ 853**	$ (518)	$ (332)	$ (850)	$ (518)	$ (81)	$ (599)
Total foreign currency translation	**659**	**194**	**853**	(518)	(332)	(850)	(518)	(81)	(599)
Unrealized gain (loss) on assets available-for-sale:									
Unrealized gain (loss) arising during period	**237**	**(84)**	**153**	(388)	146	(242)	(535)	172	(363)
Reclassification adjustment *(b)*	**(3)**	**—**	**(3)**	(75)	26	(49)	(83)	31	(52)
Net unrealized gain (loss) on assets available-for-sale	**234**	**(84)**	**150**	(463)	172	(291)	(618)	203	(415)
Defined benefit plans:									
Net gain (loss) arising during the period	**454**	**(112)**	**342**	(151)	43	(108)	(105)	40	(65)
Foreign exchange adjustment	**1**	**—**	**1**	(1)	1				
Amortization of prior service credit, net loss and initial obligation included in net periodic benefit cost *(b)*	**100**	**(32)**	**68**	88	(31)	57	104	(35)	69
Total defined benefit plans	**555**	**(144)**	**411**	(64)	13	(51)	(1)	5	4
Unrealized gain (loss) on cash flow hedges:									
Unrealized hedge gain (loss) arising during period	**33**	**(9)**	**24**	(52)	18	(34)			
Reclassification adjustment *(b)*	**(20)**	**5**	**(15)**	45	(15)	30	11	(3)	8
Net unrealized gain (loss) on cash flow hedges	**13**	**(4)**	**9**	(7)	3	(4)	11	(3)	8
Total other comprehensive income (loss)	**$ 1,461**	**$ (38)**	**$ 1,423**	$ (1,052)	$ (144)	$ (1,196)	$ (1,126)	$ 124	$ (1,002)

(a) Includes the impact of hedges of net investments in foreign subsidiaries. See Note 21 for additional information.

(b) The reclassification adjustment related to the unrealized gain (loss) on assets available-for-sale is recorded as net securities gains on the Consolidated Income Statement. The amortization of prior service credit, net loss and initial obligation included in net periodic benefit cost is recorded as staff expense on the Consolidated Income Statement. See Note 16 of the Notes to Consolidated Financial Statements for the location of the reclassification adjustment related to cash flow hedges on the Consolidated Income Statement.

Changes in accumulated other comprehensive income (loss) attributable to The Bank of New York Mellon Corporation shareholders

		ASC 820 Adjustments				
(in millions)	Foreign currency translation	Pensions	Other post-retirement benefits	Unrealized gain (loss) on assets available-for-sale	Unrealized gain (loss) on cash flow hedges	Total accumulated other comprehensive income (loss), net of tax
2014 ending balance	$ (1,069)	$ (1,236)	$ (65)	$ 742	$ (6)	$ (1,634)
Change in 2015	(563)	(14)	18	(415)	8	(966)
2015 ending balance	$ (1,632)	$ (1,250)	$ (47)	$ 327	$ 2	$ (2,600)
Change in 2016	(819)	(56)	5	(291)	(4)	(1,165)
2016 ending balance	$ (2,451)	$ (1,306)	$ (42)	$ 36	$ (2)	$ (3,765)
Change in 2017	**838**	**419**	**(8)**	**150**	**9**	**1,408**
2017 ending balance	**$ (1,613)**	**$ (887)**	**$ (50)**	**$ 186**	**$ 7**	**$ (2,357)**

Note 15 - Stock-based compensation

Our Long-Term Incentive Plans provide for the issuance of stock options, restricted stock, restricted stock units (“RSUs”) and other stock-based awards to employees and directors of BNY Mellon. At Dec. 31, 2017 , under the Long-Term Incentive Plan approved in April 2014, we may issue 27,998,933 new stock-based awards. Of this amount, 13,258,636 shares (subject to potential increase as provided in the Long-Term Incentive Plan) may be issued as restricted stock or RSUs. Stock-based compensation expense related to retirement eligibility vesting totaled $109 million in 2017 , $106 million in 2016 and $97 million in 2015 .

Stock options

Our Long-Term Incentive Plans provide for the issuance of stock options at fair market value at the date of grant to officers and employees of BNY Mellon. Generally, each option granted is exercisable

between one and 10 years from the date of grant. No stock options were granted in 2017, 2016 and 2015.

There was no compensation cost charged against income in 2017 . Compensation costs that were charges against income were $2 million in 2016 and $10 million in 2015 . There was no income tax benefit recognized in the income statement in 2017 . Total income tax benefit recognized in the income statement was $1 million in 2016 and $4 million in 2015 .

A summary of the status of our options as of Dec. 31, 2017 , and changes during the year, is presented below:

Stock option activity	Shares subject to option	Weighted-average exercise price	Weighted-average remaining contractual term *(in years)*
Balance at Dec. 31, 2016	21,241,568	$ 32.57	2.8
Granted	—	—	
Exercised	(11,778,373)	36.66	
Canceled/Expired	(161,055)	39.10	
Balance at Dec. 31, 2017	**9,302,140**	**$ 27.27**	**2.7**
Vested and expected to vest at Dec. 31, 2017	**9,302,140**	**27.27**	**2.7**
Exercisable at Dec. 31, 2017	**9,302,140**	**27.27**	**2.7**

Stock options outstanding at Dec. 31, 2017

	Options outstanding			Options exercisable *(a)*	
Range of exercise prices	Outstanding	Weighted-average remaining contractual life *(in years)*	Weighted-average exercise price	Exercisable	Weighted-average exercise price
$ 18 to 31	8,544,242	2.9	$ 25.68	8,544,242	$ 25.68
$ 31 to 41	13,908	0.5	35.52	13,908	35.52
$ 41 to 51	743,990	0.1	45.39	743,990	45.39
$ 18 to 51	**9,302,140**	**2.7**	**$ 27.27**	**9,302,140**	**$ 27.27**

(a) At Dec. 31, 2016 and Dec. 31, 2015 , 21,241,568 and 33,703,283 options were exercisable at a weighted-average price per common share of $32.57 and $34.27 , respectively.

Aggregate intrinsic value of options *(in millions)*	**2017**	2016	2015
Outstanding at Dec. 31,	**$ 247**	$ 315	$ 306
Exercisable at Dec. 31,	**$ 247**	$ 315	$ 267

The total intrinsic value of options exercised was $159 million in 2017 , $122 million in 2016 and $130 million in 2015 .

Cash received from option exercises totaled $431 million in 2017 , $438 million in 2016 and $326 million in 2015 . The actual excess tax benefit realized for the tax deductions from options exercised totaled $16 million in 2017 , $3 million in 2016 and $21 million in 2015 .

Restricted stock, RSUs and Performance units

Restricted stock and RSUs are granted under our long-term incentive plans at no cost to the recipient. These awards are subject to forfeiture until certain restrictions have lapsed, including continued employment, for a specified period. The recipient of a share of restricted stock is entitled to voting rights and generally is entitled to dividends on the common stock. An RSU entitles the recipient to receive a share of common stock after the applicable restrictions lapse. The recipient generally is entitled to receive cash payments equivalent to any dividends paid on the underlying common stock during the period the RSU is outstanding but does not receive voting rights.

The fair value of restricted stock and RSUs is equal to the fair market value of our common stock on the date of grant. The expense is recognized over the vesting period, which is generally zero to four years . The total compensation expense recognized for restricted stock and RSUs was $273 million in 2017 , $256 million in 2016 and $235 million in 2015 . The total income tax benefit recognized in the income statement was $66 million in 2017 , $91 million in 2016 and $83 million in 2015 .

BNY Mellon's Executive Committee members were granted a target award of 793,847 performance units ("PSUs") in 2017 , 548,391 in 2016 and 630,100 in 2015 that cliff vest in 3 years based on operating earnings per share with the potential of a risk modifier based on appropriate growth in risk-weighted assets. These awards are classified as liabilities and marked-to-market as the earnout percentages are determined at the discretion of the Human Resources Compensation Committee based on a payout table.

The following table summarizes our non-vested PSU, restricted stock and RSU activity for 2017 .

Non-vested PSU, restricted stock and RSU activity	Number of shares		Weighted-average fair value
Non-vested PSUs, restricted stock and RSUs at Dec. 31, 2016	17,995,515	$	35.98
Granted	**6,725,625**		**48.71**
Vested	**(7,510,459)**		**34.39**
Forfeited	**(479,349)**		**38.79**
Non-vested PSUs, restricted stock and RSUs at Dec. 31, 2017	**16,731,332**	**$**	**42.42**

As of Dec. 31, 2017 , $224 million of total unrecognized compensation costs related to non-vested PSUs, restricted stock and RSUs is expected to be recognized over a weighted-average period of 2.1 years.

The total fair value of restricted stock, RSUs and PSUs that vested was $260 million in 2017 , $236 million in 2016 and $429 million in 2015 . The actual excess tax benefit realized for the tax deductions from shares vested totaled $34 million in 2017 , $8 million in 2016 and $51 million in 2015 .

Subsidiary Long-Term Incentive Plans

BNY Mellon also has several subsidiary Long-Term Incentive Plans which have issued restricted subsidiary shares to certain employees. These share awards are subject to forfeiture until certain restrictions have lapsed, including continued employment for a specified period of time. The shares are non-voting and non-dividend paying. Once the restrictions lapse, which generally occurs in three to five years, the shares can only be sold, at the option of the employee, to BNY Mellon at a price based generally on the fair value of the subsidiary at the time of repurchase. In certain instances BNY Mellon has an election to call the shares.

Note 16 - Employee benefit plans

BNY Mellon has defined benefit and/or defined contribution retirement plans covering substantially all full-time and eligible part-time employees and other post-retirement plans providing healthcare benefits for certain retired employees. Effective June 30, 2015, the benefit accruals under the U.S. qualified and nonqualified defined benefit plans were frozen. This change resulted in no additional benefits being earned by participants in those plans based on service or pay after June 30, 2015.

Pension and post-retirement healthcare plans

The following tables report the combined data for our domestic and foreign defined benefit pension and post-retirement healthcare plans.

	Pension Benefits				Healthcare Benefits			
	Domestic		Foreign		Domestic		Foreign	
(dollar amounts in millions)	**2017**	2016	**2017**	2016	**2017**	2016	**2017**	2016
Weighted-average assumptions used to determine benefit obligations								
Discount rate	**3.97%**	4.35%	**2.45%**	2.53%	**3.97%**	4.35%	**2.50%**	2.60%
Rate of compensation increase	**N/A**	N/A	**3.02**	3.60	**3.00**	3.00	**N/A**	N/A
Change in benefit obligation *(a)*								
Benefit obligation at beginning of period	**$ (4,274)**	$ (4,177)	**$ (1,248)**	$ (1,147)	**$ (169)**	$ (184)	**$ (2)**	$ (4)
Service cost	**—**	—	**(31)**	(29)	**(1)**	(1)	**—**	
Interest cost	**(180)**	(182)	**(33)**	(36)	**(7)**	(8)	**—**	
Employee contributions	**—**	—	**(1)**	(1)	**—**	—	**—**	
Actuarial (loss) gain	**(165)**	(106)	**88**	(221)	**(10)**	9	**(1)**	1
Benefits paid	**214**	191	**31**	23	**12**	15	**—**	
Foreign exchange adjustment	**N/A**	N/A	**(128)**	163	**N/A**	N/A	**(1)**	1
Benefit obligation at end of period	**(4,405)**	(4,274)	**(1,322)**	(1,248)	**(175)**	(169)	**(4)**	(2)
Change in fair value of plan assets								
Fair value at beginning of period	**4,906**	4,689	**1,090**	1,014	**97**	92	**—**	
Actual return on plan assets	**783**	387	**128**	162	**10**	5	**—**	
Employer contributions	**21**	21	**93**	87	**12**	15	**—**	
Employee contributions	**—**		**1**	1	**—**	—	**—**	—
Benefit payments	**(214)**	(191)	**(31)**	(23)	**(12)**	(15)	**—**	
Foreign exchange adjustment	**N/A**	N/A	**112**	(151)	**N/A**	N/A	**—**	
Fair value at end of period	**5,496**	4,906	**1,393**	1,090	**107**	97	**—**	
Funded status at end of period	**$ 1,091**	$ 632	**$ 71**	$ (158)	**$ (68)**	$ (72)	**$ (4)**	$ (2)
Amounts recognized in accumulated other comprehensive (income) loss consist of:								
Net loss (gain)	**$ 1,294**	$ 1,656	**$ 255**	$ 461	**$ 97**	$ 96	**$ (1)**	$ (2)
Prior service cost (credit)	**—**	—	**1**	—	**(49)**	(59)	**—**	
Total (before tax effects)	**$ 1,294**	$ 1,656	**$ 256**	$ 461	**$ 48**	$ 37	**$ (1)**	$ (2)

(a) The benefit obligation for pension benefits is the projected benefit obligation, and for healthcare benefits, it is the accumulated benefit obligation.

Net periodic benefit cost (credit)	Pension Benefits							Healthcare Benefits					
	Domestic				Foreign			Domestic			Foreign		
(dollar amounts in millions)	**2017**	2016	2015	*(a)*	**2017**	2016	2015	**2017**	2016	2015	**2017**	2016	2015
Weighted-average assumptions as of Jan. 1:													
Market-related value of plan assets	**$ 5,026**	$ 4,830	$ 4,696		**$ 994**	$ 994	$ 959	**$ 102**	$ 97	$ 92	**N/A**	N/A	N/A
Discount rate	**4.35%**	4.48%	4.13%		**2.53%**	3.45%	3.33%	**4.35%**	4.48%	4.13%	**2.60%**	3.60%	3.10%
Expected rate of return on plan assets	**6.625**	7.00	7.25		**4.61**	5.35	5.25	**6.625**	7.00	7.25	**N/A**	N/A	N/A
Rate of compensation increase	**N/A**	N/A	3.00		**3.60**	3.51	3.29	**3.00**	3.00	3.00	**N/A**	N/A	N/A
Components of net periodic benefit cost (credit):													
Service cost	**$ —**	$ —	$ 30		**$ 31**	$ 29	$ 32	**$ 1**	$ 1	$ 1	**$ —**		$ — $ —
Interest cost	**180**	182	170		**33**	36	38	**7**	8	8	**—**		
Expected return on assets	**(325)**	(330)	(333)		**(50)**	(51)	(51)	**(7)**	(7)	(6)	**—**		
Amortization of:													
Prior service (credit) cost	**—**	—	(1)		**—**	1	—	**(10)**	(10)	(10)	**—**		
Net actuarial loss	**67**	69	111		**35**	17	23	**6**	8	10	**—**		

Settlement loss	**2**	2	1	**—**	1	—	**—**	—	—	**—**	—	—
Curtailment (gain)	**—**	—	(30)	**—**	—	—	**—**	—	—	**—**		
Net periodic benefit cost (credit)	**$ (76)**	$ (77)	$ (52)	**$ 49**	$ 33	$ 42	**$ (3)**	$ —	$ 3	**$ —**	$ —	$ —

(a) As a result of the amendment to the U.S. pension plans, liabilities were re-measured as of Jan. 29, 2015 at a discount rate of 3.73% and the market-related value of plan assets was $4,713 million at Jan. 29, 2015.

Changes in other comprehensive (income) loss in 2017	Pension Benefits		Healthcare Benefits	
(in millions)	Domestic	Foreign	Domestic	Foreign
Net loss (gain) arising during period	$ **(293)**	$ **(169)**	$ **7**	$ **1**
Recognition of prior years' net (loss)	**(69)**	**(35)**	**(6)**	—
Recognition of prior years' service (cost) credit	—	—	**10**	—
Foreign exchange adjustment	**N/A**	**(1)**	**N/A**	—
Total recognized in other comprehensive (income) loss (before tax effects)	$ **(362)**	$ **(205)**	$ **11**	$ **1**

Amounts expected to be recognized in net periodic benefit cost (income) in 2018 (before tax effects)	Pension Benefits		Healthcare Benefits	
(in millions)	Domestic	Foreign	Domestic	Foreign
Loss recognition	$ **68**	$ **22**	$ **7**	$ —
Prior service (credit) recognition	—	—	**(9)**	—

	Domestic		Foreign	
(in millions)	**2017**	2016	**2017**	2016
Pension benefits:				
Prepaid benefit cost	$ **1,282**	$ 836	$ **134**	$ —
Accrued benefit cost	**(191)**	(204)	**(63)**	(158)
Total pension benefits	$ **1,091**	$ 632	$ **71**	$ (158)
Healthcare benefits:				
Accrued benefit cost	$ **(68)**	$ (72)	$ **(4)**	$ (4)
Total healthcare benefits	$ **(68)**	$ (72)	$ **(4)**	$ (4)

The accumulated benefit obligation for all defined benefit plans was $5.7 billion at Dec. 31, 2017 and $5.4 billion at Dec. 31, 2016 .

Plans with obligations in excess of plan assets	Domestic		Foreign	
(in millions)	**2017**	2016	**2017**	2016
Projected benefit obligation	$ **191**	$ 224	$ **68**	$ 149
Accumulated benefit obligation	**191**	224	**61**	142
Fair value of plan assets	**—**	20	**25**	76

Assumed healthcare cost trend - Domestic post-retirement healthcare benefits

The assumed healthcare cost trend rate used in determining benefit expense for 2018 is 6.25% , decreasing to 4.75% in 2023. This projection is based on various economic models that forecast a decreasing growth rate of healthcare expenses over time. The underlying assumption is that healthcare expense growth cannot outpace gross national product growth indefinitely, and over time a lower equilibrium growth rate will be achieved. Further, the growth rate assumed in 2023 bears a reasonable relationship to the discount rate.

An increase in the healthcare cost trend rate of one percentage point for each year would increase the accumulated post-retirement benefit obligation by $10 million , or 6% , and the sum of the service and interest costs by less than $1 million , or 6% . Conversely, a decrease in this rate of one percentage point for each year would decrease the benefit obligation by $9 million , or 5% , and the sum of the service and interest costs by less than $1 million , or 5% .

Assumed healthcare cost trend - Foreign post-retirement healthcare benefits

An increase in the healthcare cost trend rate of one percentage point for each year would increase the accumulated post-retirement benefit obligation by less than $1 million and the sum of the service and interest costs by less than $1 million . Conversely, a decrease in this rate of one percentage point for each year would decrease the benefit obligation by less than $1 million and the sum of the service and interest costs by less than $1 million .

The following benefit payments for BNY Mellon's pension and healthcare plans, which reflect expected future service as appropriate, are expected to be paid over the next 10 years:

Expected benefit payments *(in millions)*		**Domestic**	**Foreign**
Pension benefits:			
Year	2018	$ 280	$ 20
	2019	262	19
	2020	260	19
	2021	262	22
	2022	259	23
	2023-2027	1,303	137
Total pension benefits		$ 2,626	$ 240
Healthcare benefits:			
Year	2018	$ 13	$
	2019	13	
	2020	13	
	2021	13	
	2022	12	—
	2023-2027	55	1
Total healthcare benefits		$ 119	$ 1

Plan contributions

BNY Mellon expects to make cash contributions to fund its defined benefit pension plans in 2018 of $32 million for the domestic plans and $22 million for the foreign plans.

BNY Mellon expects to make cash contributions to fund its post-retirement healthcare plans in 2018 of $13 million for the domestic plans and less than $1 million for the foreign plans.

Investment strategy and asset allocation

BNY Mellon is responsible for the administration of various employee pension and healthcare post-retirement benefits plans, both domestically and internationally. The domestic plans are administered by BNY Mellon's Benefits Administration Committee, a named fiduciary. Subject to the following, at all relevant times, BNY Mellon's Benefits Investment Committee, another named fiduciary to the domestic plans, is responsible for the investment of plan assets. The Benefits Investment Committee's responsibilities include the investment of all domestic defined benefit plan assets, as well as the determination of investment options offered to participants in all domestic defined contribution plans. The Benefits Investment Committee conducts periodic reviews of investment performance, asset allocation and investment manager suitability. In addition, the Benefits Investment Committee has oversight of the Regional Governance Committees for the foreign defined benefit plans.

Our investment objective for U.S. and foreign plans is to maximize total return while maintaining a broadly diversified portfolio for the primary purpose of satisfying obligations for future benefit payments.

Equities are the main holding of the plans. Alternative investments (including private equities) and fixed-income securities provide diversification and, in certain cases, lower the volatility of returns. In general, equity securities and alternative investments within any domestic plan's portfolio can be maintained in the range of 30% to 70% of total plan assets, fixed-income securities can range from 20% to 50% of plan assets and cash equivalents can be held in amounts ranging from 0% to 5% of plan assets. Actual asset allocation within the approved ranges varies from time to time based on economic conditions (both current and forecast) and the advice of professional advisors.

Our pension assets were invested as follows at Dec. 31, 2017 and Dec. 31, 2016 :

Asset allocations	Domestic		Foreign	
	2017	2016	**2017**	2016
Equities	**63%**	58%	**51%**	52%
Fixed income	**33**	36	**33**	29
Private equities	**1**	1	**—**	
Alternative investment	**2**	3	**9**	3
Real estate	**—**	—	**4**	4
Cash	**1**	2	**3**	12
Total pension benefits	**100%**	100%	**100%**	100%

We held no The Bank of New York Mellon Corporation stock in our pension plans at Dec. 31, 2017 and Dec. 31, 2016 . Assets of the U.S. post-retirement healthcare plan are invested in an insurance contract.

Fair value measurement of plan assets

In accordance with ASC 715, *Compensation - Retirement Benefits* , BNY Mellon has established a three-level hierarchy for fair value measurements of its pension plan assets based upon the transparency of inputs to the valuation of an asset as of the measurement date. The valuation hierarchy is consistent with guidance in ASC 820, *Fair Value*

Measurement , which is detailed in Note 18 of the Notes to Consolidated Financial Statements.

The following is a description of the valuation methodologies used for assets measured at fair value, as well as the general classification of such assets pursuant to the valuation hierarchy.

Cash and currency

This category consists primarily of foreign currency balances and is included in Level 1 of the valuation hierarchy. Foreign currency is translated monthly based on current exchange rates.

Common and preferred stock, exchange-traded funds and mutual funds

These investments include equities, exchange-traded funds and mutual funds and are valued at the closing price reported in the active market in which the individual securities are traded, if available. Where there are no readily available market quotations, we determine fair value primarily based on pricing sources with reasonable levels of price transparency.

Collective trust funds

Collective trust funds include commingled and U.S. equity funds that have no readily available market quotations. The fair value of the funds is based on the securities in the portfolio, which typically are the amount that the fund might reasonably expect to receive for the securities upon a sale. These funds are valued using observable inputs on either a daily or monthly basis. Collective trust funds are included as Level 2 of the valuation hierarchy.

Fixed-income investments

Fixed-income investments include U.S. Treasury securities, U.S. government agencies, sovereign government obligations, U.S. corporate bonds and foreign corporate debt funds. U.S. Treasury securities are valued at the closing price reported in the active market in which the individual security is traded and included as Level 1 of the valuation hierarchy. U.S. government agencies, sovereign government obligations, U.S. corporate bonds and foreign corporate debt funds are valued based on quoted prices for comparable securities with similar yields and credit ratings. When quoted prices are not available for identical or similar bonds, the bonds are valued using discounted cash flows that maximize observable inputs, such as current yields of similar instruments, but includes adjustments for certain risks that may not be observable, such as credit and liquidity risks. U.S. government agencies, sovereign government obligations, U.S. corporate bonds and foreign corporate debt funds are primarily included as Level 2 of the valuation hierarchy.

Other assets measured at NAV

Other assets measured at NAV include funds of funds and venture capital and partnership interests, property funds and other funds. There are no readily available market quotations for these funds. The fair value of the funds of funds is based on NAVs of the funds in the portfolio, which reflects the value of the underlying securities. The fair value of the underlying securities is typically the amount that the fund might reasonably expect to receive upon selling those hard to value or illiquid securities within the portfolios. These funds are either valued on a daily or monthly basis. The fair value of the venture capital and partnership interests is based on the pension plan’s ownership percentage of the fair value of the underlying funds as provided by the fund managers. These funds are typically valued on a quarterly basis. The pension plan’s venture capital and partnership interests are valued at NAV as a practical expedient for fair value.

The following tables present the fair value of each major category of plan assets as of Dec. 31, 2017 and Dec. 31, 2016 , by captions and by ASC 820, *Fair Value Measurement*, valuation hierarchy. Beginning in 2017, we refined the methodology used to determine the level of the three-level valuation hierarchy for certain domestic plan assets which resulted in a portion of sovereign debt being transferred from Level 2 to Level 1. Prior period amounts were not adjusted.

Plan assets measured at fair value on a recurring basis—domestic plans at Dec. 31, 2017

(in millions)	Level 1	Level 2	Level 3	Total fair value
Common and preferred stock:				
U.S. equity	**$ 1,815**	**$ —**	**$ —**	**$ 1,815**
Non-U.S. equity	**243**	**—**	**—**	**243**
Collective trust funds:				
Commingled	**—**	**193**	**—**	**193**
U.S. equity	**—**	**1,389**	**—**	**1,389**
Fixed income:				
U.S. Treasury securities	**452**	**—**	**—**	**452**
U.S. government agencies	**—**	**48**	**—**	**48**
Sovereign government obligations	**5**	**6**	**—**	**11**
U.S. corporate bonds	**—**	**910**	**—**	**910**
Other	**—**	**100**	**—**	**100**
Mutual funds	**163**	**—**	**—**	**163**
Exchange-traded funds	**—**	**—**	**—**	**—**
Total domestic plan assets in the fair value hierarchy	**$ 2,678**	**$ 2,646**	**$ —**	**$ 5,324**
Other assets measured at NAV:				
Funds of funds				**129**
Venture capital and partnership interests				**43**
Total domestic plan assets, at fair value				**$ 5,496**

Plan assets measured at fair value on a recurring basis—foreign plans at Dec. 31, 2017

(in millions)	Level 1	Level 2	Level 3	Total fair value
Equity funds	**$ 434**	**$ 277**	**$ —**	**$ 711**
Sovereign/government obligation funds	**—**	**104**	**—**	**104**
Corporate debt funds	**—**	**345**	**—**	**345**
Cash and currency	**41**	**—**	**—**	**41**
Total foreign plan assets in the fair value hierarchy	**$ 475**	**$ 726**	**$ —**	**$ 1,201**
Other assets measured at NAV				**192**
Total foreign plan assets, at fair value				**$ 1,393**

Plan assets measured at fair value on a recurring basis—domestic plans at Dec. 31, 2016

(in millions)	Level 1	Level 2	Level 3	Total fair value
Common and preferred stock:				
U.S. equity	$ 1,493	$ —	$ —	$ 1,493
Non-U.S. equity	137	—	—	137
Collective trust funds:				
Commingled	—	367	—	367
U.S. equity	—	1,115	—	1,115
Fixed income:				
U.S. Treasury securities	523	—	—	523
U.S. government agencies	—	66	—	66
Sovereign government obligations	—	7	—	7
U.S. corporate bonds	—	823	—	823
Other		48	—	48
Mutual funds	135	—	—	135
Exchange-traded funds	6	—	—	6
Total domestic plan assets in the fair value hierarchy	$ 2,294	$ 2,426	$ —	$ 4,720
Other assets measured at NAV:				
Funds of funds				138
Venture capital and partnership interests				48
Total domestic plan assets, at fair value				$ 4,906

Plan assets measured at fair value on a recurring basis—foreign plans at Dec. 31, 2016

(in millions)	Level 1	Level 2	Level 3	Total fair value
Equity funds	$ 371	$ 207	$ —	$ 578
Sovereign/government obligation funds		95	—	95
Corporate debt funds	—	208	17	225
Cash and currency	120	—	—	120
Total foreign plan assets in the fair value hierarchy	$ 491	$ 510	$ 17	$ 1,018
Other assets measured at NAV				72
Total foreign plan assets, at fair value				$ 1,090

Changes in Level 3 fair value measurements

The tables below present a rollforward of the plan assets for the years ended Dec. 31, 2017 and Dec. 31, 2016 (including the change in fair value), for financial instruments classified in Level 3 of the valuation hierarchy.

Fair value measurements using significant unobservable inputs—foreign plans—for the year ended Dec. 31, 2017

(in millions)		Corporate debt funds
Fair value at Dec. 31, 2016	$	17
Transfers out of Level 3		(20)
Total gains or (losses) included in plan assets		3
Fair value at Dec. 31, 2017	**$**	**—**
Change in unrealized gains or (losses) for the period included in earnings for assets held at the end of the reporting period $		

Fair value measurements using significant unobservable inputs—foreign plans—for the year ended Dec. 31, 2016

(in millions)		Corporate debt funds
Fair value at Dec. 31, 2015	$	19
Total gains or (losses) included in plan assets		(2)
Fair value at Dec. 31, 2016	$	17
Change in unrealized gains or (losses) for the period included in earnings for assets held at the end of the reporting period	$	(2)

Funds of funds and venture capital and partnership interests valued using NAV per share

BNY Mellon had pension and post-retirement plan assets invested in funds of funds, venture capital and partnership interests, property funds and other contracts valued using NAV. The funds of funds investments are redeemable at NAV under agreements with the funds of funds managers.

Assets valued using NAY at Dec. 31, 2017

(dollar amounts in millions)	Fair value	Unfunded commitments	Redemption frequency	Redemption notice period
Funds of funds *(a)*	$ 152 $	—	Monthly	30-45 days
Venture capital and partnership interests *(b)*	128	49	N/A	N/A
Property funds *(c)*	51	—	Monthly	0-90 days
Corporate debt	20	—	N/A	N/A
Other contracts *(d)*	13	—	N/A	N/A
Total	**$ 364 $**	**49**		

Assets valued using NAY at Dec. 31, 2016

(dollar amounts in millions)	Fair value	Unfunded commitments	Redemption frequency	Redemption notice period
Funds of funds *(a)*	$ 158 $	—	Monthly	30-45 days
Venture capital and partnership interests *(b)*	48	8	N/A	N/A
Property funds *(c)*	40	—	Daily-Quarterly	0-90 days
Other contracts *(d)*	12	—	N/A	N/A
Total	$ 258 $	8		

(a) *Funds of funds include multi-strategy hedge funds that utilize investment strategies that invest over both long-term investment and short-term investment horizons.*
(b) *Venture capital and partnership interests do not have redemption rights. Distributions from such funds will be received as the underlying investments are liquidated.*
(c) *Property funds include funds invested in regional real estate vehicles that hold direct interest in real estate properties.*
(d) *Other contracts include assets invested in pooled accounts at insurance companies that are privately valued by the asset manager.*

Defined contribution plans

BNY Mellon sponsors defined contribution plans in the U.S. and in certain non-U.S. locations, all of which are administered in accordance with local laws. The most significant defined contribution plan is The Bank of New York Mellon Corporation 401(k) Savings Plan sponsored by the Company in the U.S. and covers substantially all U.S. employees.

Under The Bank of New York Mellon Corporation 401(k) Savings Plan, the Company matched 100% of the first 4% of an employee's eligible base pay plus 50% of the next 2% of eligible pay contributed by the participant for a maximum matching contribution of 5% for 2017, 2016 and 2015, subject to statutory limits.

The U.S. qualified and nonqualified defined benefit plans were closed to new participants effective Dec. 31, 2010, at which time an annual non-elective contribution equal to 2% of eligible base pay was added to The Bank of New York Mellon Corporation 401(k) Savings Plan.

Effective June 30, 2015, the benefit accruals under the U.S. qualified and nonqualified defined benefit plans were frozen. Employees, who were hired before Jan. 1, 2010 and were eligible to earn benefits in the pension plan prior to freezing the benefit accrual, received the non-elective contribution starting July 1, 2015. All Company contributions are invested according to participants' individual elections.

At Dec. 31, 2017 and Dec. 31, 2016 , The Bank of New York Mellon Corporation 401(k) Savings Plan owned 13.2 million and 14.2 million shares of our common stock, respectively. The fair value of total assets was $6.6 billion at Dec. 31, 2017 and $5.7 billion at Dec. 31, 2016 . We recorded expense of $232 million in 2017 , $224 million in 2016 and $209 million in 2015 primarily for contributions to our defined contribution plans.

We also have an ESOP covering certain domestic full-time employees hired on or before July 1, 2008. The ESOP works in conjunction with the defined benefit pension plan. Employees are entitled to the higher of their benefit under the ESOP or such defined benefit pension plan at retirement. Benefits payable under the defined benefit pension plan are offset by the equivalent value of benefits earned under the ESOP.

At Dec. 31, 2017 and Dec. 31, 2016 , the ESOP owned 5.4 million and 5.7 million shares of our common stock, respectively. The fair value of total ESOP assets was $293 million at Dec. 31, 2017 and $273 million at Dec. 31, 2016 . The ESOP was amended effective June 30, 2015 to discontinue the ability of the Company to make contributions to the ESOP. There were no contributions in 2015, prior to amending the plan.

The Benefits Investment Committee appointed Fiduciary Counselors, Inc. to serve as the independent fiduciary to (i) make all fiduciary decisions related to the continued prudence of offering the common stock of BNY Mellon or its affiliates as an investment option under the plans, other than plan sponsor decisions, and (ii) select and monitor any actively or passively managed investments (including mutual funds) of BNY Mellon or its affiliates to be offered to participants as investment options under the plans, excluding self-directed accounts.

Note 17 - Company financial information (Parent Corporation)

In connection with our single point of entry resolution strategy, we have established an IHC to facilitate the provision of capital and liquidity resources to certain key subsidiaries in the event of material financial distress or failure. In the second quarter of 2017, we entered into a binding support agreement with those key subsidiaries and other related entities that requires the IHC to provide that support. The support agreement required the Parent to transfer $10.4 billion of intercompany loans and $5.6 billion of cash to the IHC, and requires the Parent to continue to transfer cash and other liquid financial assets to the IHC, subject to certain amounts retained by the Parent to meet its near-term cash needs. The Parent’s and the IHC’s obligations under the support agreement are secured. In connection with the initial transfer, the IHC issued $16.0 billion of unsecured subordinated funding notes to the Parent. The IHC has also provided the Parent with a committed line of credit that allows the Parent to draw funds necessary to service near-term obligations. As a result, during business-as-usual circumstances, the Parent is expected to continue to have access to the funds necessary to pay dividends, repurchase common stock, service its debt and satisfy its other obligations. If our projected liquidity resources deteriorate so severely that resolution of the Parent becomes imminent, the committed line of credit the IHC provided to the Parent will automatically terminate, with all amounts outstanding becoming due and payable, and the support agreement will require the Parent to transfer most of its remaining assets (other than stock in subsidiaries and a cash reserve to fund bankruptcy expenses) to the IHC. As a result, during a period of severe financial stress, the Parent could become unable to meet its debt and payment obligations (including with respect to its securities), causing the Parent to seek protection under bankruptcy laws earlier than it otherwise would have.

Our bank subsidiaries are subject to dividend limitations under the Federal Reserve Act, as well as national and state banking laws. Under these statutes, prior regulatory consent is required for dividends in any year that would exceed the bank’s net profits for such year combined with retained net profits for the prior two years. Additionally, such bank subsidiaries may not declare dividends in excess of net profits on hand, as defined, after deducting the amount by which the principal amount of all loans, on which interest is past due for a period of six months or more, exceeds the allowance for credit losses.

The payment of dividends also is limited by minimum capital requirements imposed on banks. As of Dec. 31, 2017 , BNY Mellon’s bank subsidiaries exceeded these minimum requirements.

Subsequent to Dec. 31, 2017 , our U.S. bank subsidiaries could declare dividends to the Parent of approximately $6.2 billion , without the need for a regulatory waiver. In addition, at Dec. 31, 2017 , non-bank subsidiaries of the Parent had liquid assets of approximately $1.4 billion .

The bank subsidiaries declared dividends of $1.3 billion in 2017 , $160 million in 2016 and $182 million in 2015 . The Federal Reserve and the OCC have issued additional guidelines that require BHCs and national banks to continually evaluate the level of cash dividends in relation to their respective operating income, capital needs, asset quality and overall financial condition.

The Federal Reserve policy with respect to the payment of cash dividends by BHCs provides that, as a matter of prudent banking, a BHC should not maintain a rate of cash dividends unless its net income available to common shareholders has been sufficient to fully fund the dividends, and the prospective rate of earnings retention appears to be consistent with the holding company's capital needs, asset quality and overall financial condition. The Federal Reserve can also prohibit a dividend if payment would constitute an unsafe or unsound banking practice. Any increase in BNY Mellon's ongoing quarterly dividends would require approval from the Federal Reserve. The Federal Reserve's instructions for the 2018 CCAR provided that, for large BHCs like us, dividend payout ratios exceeding 30% of after-tax net income would receive particularly close scrutiny.

BNY Mellon and other affected BHCs may pay dividends, repurchase stock, and make other capital distributions only in accordance with a capital plan that has been reviewed by the Federal Reserve and as to which the Federal Reserve has not objected. The Federal Reserve may object to a capital plan if the plan does not show that the covered BHC will meet, for each quarter throughout the nine-quarter planning horizon covered by the capital plan, all minimum regulatory capital ratios under applicable capital rules as in effect for that quarter on a *pro forma* basis under the base case and stressed scenarios (including a severely adverse scenario provided by the Federal Reserve). The capital plan rules also stipulate that a covered BHC may not make a capital distribution unless after giving effect to the distribution it will meet all minimum regulatory capital ratios. As part of this process, BNY Mellon also provides the Federal Reserve with estimates of the composition and levels of regulatory capital, RWAs and other measures under Basel III under an identified scenario. In June 2017, BNY Mellon received confirmation that the Federal Reserve did not object to its 2017 capital plan. The board of directors subsequently approved the repurchase of up to $2.6 billion worth of common stock over a four-quarter period beginning in the third quarter of 2017 and continuing through the second quarter of 2018. This new share repurchase plan replaces all previously authorized share repurchase plans.

The Federal Reserve Act limits, and requires collateral for, extensions of credit by our insured subsidiary banks to BNY Mellon and certain of its non-bank affiliates. Also, there are restrictions on the amounts of investments by such banks in stock and other securities of BNY Mellon and such affiliates, and restrictions on the acceptance of their securities as collateral for loans by such banks. Extensions of credit by the banks to each of our affiliates are limited to 10% of such bank's regulatory capital, and in the aggregate for BNY Mellon and all such affiliates to 20% , and collateral must be between 100% and 130% of the amount of the credit, depending on the type of collateral.

Our insured subsidiary banks are required to maintain reserve balances with Federal Reserve Banks under the Federal Reserve Act and Regulation D. Required balances averaged $5.6 billion and $6.0 billion for the years 2017 and 2016 , respectively.

In the event of impairment of the capital stock of one of the Parent's national banks or The Bank of New York Mellon, the Parent, as the banks' stockholder, could be required to pay such deficiency.

The Parent guarantees the debt issued by Mellon Funding Corporation, a wholly owned financing subsidiary of the Company. The Parent also guarantees committed and uncommitted lines of credit of Pershing LLC and Pershing Limited subsidiaries. The Parent guarantees described above are full and unconditional and contain the standard provisions relating to parent guarantees of subsidiary debt. Additionally, the Parent guarantees or indemnifies obligations of its consolidated subsidiaries as needed. Generally, there are no stated notional amounts included in these indemnifications and the contingencies triggering the obligation for indemnification are not expected to occur. As a result, we are unable to develop an estimate of the maximum payout under these indemnifications.

However, we believe the possibility is remote that we will have to make any material payment under these guarantees and indemnifications.

The condensed financial statements of the Parent include the accounts of the Parent; Mellon Funding Corporation and MIPA, LLC, a single-member limited liability company, created to hold and administer corporate-owned life insurance. Financial data for the Parent, the financing subsidiary and the single-member limited liability company are combined for financial reporting purposes because of the limited function of these entities and the unconditional guarantee by BNY Mellon of their obligations.

The Parent's condensed financial statements are as follows:

Condensed Income Statement—The Bank of New York Mellon Corporation (Parent Corporation)

	Year ended Dec. 31,		
(in millions)	**2017**	2016	2015
Dividends from bank subsidiaries	$ **1,405**	$ 125	$ 145
Dividends from nonbank subsidiaries	**382**	798	207
Interest revenue from bank subsidiaries	**25**	70	68
Interest revenue from nonbank subsidiaries	**171**	121	91
Gain on securities held for sale	**—**	—	3
Other revenue	**67**	39	25
Total revenue	**2,050**	1,153	539
Interest (including, $73, $88, $69, to subsidiaries, respectively)	**663**	427	288
Other expense	**254**	262	64
Total expense	**917**	689	352
Income before income taxes and equity in undistributed net income of subsidiaries	**1,133**	464	187
(Benefit) for income taxes	**(526)**	(333)	(98)
Equity in undistributed net income:			
Bank subsidiaries	**1,524**	2,474	2,004
Nonbank subsidiaries	**907**	276	869
Net income	**4,090**	3,547	3,158
Preferred stock dividends	**(175)**	(122)	(105)
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	$ **3,915**	$ 3,425	$ 3,053

Condensed Balance Sheet—The Bank of New York Mellon Corporation (Parent Corporation)

	Dec. 31,	
(in millions)	**2017**	2016
Assets:		
Cash and due from banks	$ **1,301**	$ 9,117
Securities	**40**	1,693
Loans, net of allowance	**—**	7
Investment in and advances to subsidiaries and associated companies:		
Banks	**32,967**	32,771
Other	**37,660**	26,630
Subtotal	**70,627**	59,401
Corporate-owned life insurance	**756**	744
Other assets	**1,135**	885
Total assets	$ **73,859**	$ 71,847
Liabilities:		
Deferred compensation	$ **476**	$ 464
Affiliate borrowings	**3,177**	7,107
Other liabilities	**1,373**	1,445
Long-term debt	**27,582**	24,020
Total liabilities	**32,608**	33,036
Shareholders' equity	**41,251**	38,811
Total liabilities and shareholders' equity	$ **73,859**	$ 71,847

Condensed Statement of Cash Flows—The Bank of New York Mellon Corporation (Parent Corporation)

(in millions)	Year ended Dec. 31, 2017	2016	2015
Operating activities:			
Net income	**$ 4,090**	$ 3,547	$ 3,158
Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Equity in undistributed net (income) of subsidiaries	**(2,431)**	(2,750)	(2,873)
Change in accrued interest receivable	**(6)**	2	(4)
Change in accrued interest payable	**42**	4	15
Change in taxes payable *(a)*	**(600)**	452	132
Other, net	**38**	(31)	66
Net cash provided by operating activities	**1,133**	1,224	494
Investing activities:			
Purchases of securities	**(991)**	(1,739)	
Proceeds from sales of securities	**2,729**	—	3
Change in loans	**7**	13	56
Acquisitions of, investments in, and advances to subsidiaries *(b)*	**(7,208)**	(317)	(358)
Other, net	**—**	—	14
Net cash (used for) investing activities	**(5,463)**	(2,043)	(285)
Financing activities:			
Proceeds from issuance of long-term debt	**4,738**	6,229	4,986
Repayments of long-term debt	**(997)**	(2,700)	(3,650)
Change in advances from subsidiaries	**(3,930)**	(1,136)	2,123
Issuance of common stock	**465**	465	352
Treasury stock acquired	**(2,686)**	(2,398)	(2,355)
Issuance of preferred stock	**—**	990	990
Cash dividends paid	**(1,076)**	(900)	(865)
Tax benefit realized on share-based payment awards	**—**	3	76
Net cash (used for) provided by financing activities	**(3,486)**	553	1,657
Change in cash and due from banks	**(7,816)**	(266)	1,866
Cash and due from banks at beginning of year	**9,117**	9,383	7,517
Cash and due from banks at end of year	**$ 1,301**	$ 9,117	$ 9,383
Supplemental disclosures			
Interest paid	**$ 705**	$ 409	$ 302
Income taxes paid	**61**	1	158
Income taxes refunded	**15**	12	103

(a) Includes payments received from subsidiaries for taxes of $189 million in 2017 , $189 million in 2016 and $24 million in 2015 .

(b) Includes $10,296 million of cash outflows, net of $3,088 million of cash inflows in 2017.

Note 18 - Fair value measurement

Fair value is defined as the price that would be received to sell an asset, or paid to transfer a liability, in an orderly transaction between market participants at the measurement date. A three-level hierarchy for fair value measurements is utilized based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. BNY Mellon's own creditworthiness is considered when valuing liabilities.

Fair value focuses on exit price in an orderly transaction (that is, not a forced liquidation or distressed sale) between market participants at the measurement date under current market conditions. If there has been a significant decrease in the volume and level of activity for the asset or liability, a change in valuation technique or the use of multiple valuation techniques may be appropriate. In such instances, determining the price at which willing market participants would transact at the measurement date under current market conditions depends on the facts and circumstances and requires the use of significant judgment. The objective is to determine from weighted indicators of fair value a reasonable point within the range that is most representative of fair value under current market conditions.

Determination of fair value

We have established processes for determining fair values. Fair value is based upon quoted market prices in active markets, where available. For financial instruments where quotes from recent exchange transactions are not available, we determine fair value based on discounted cash flow analysis, comparison to similar instruments and the use of financial models. Discounted cash flow analysis is dependent upon estimated future cash flows and the level of interest rates. Model-based pricing uses inputs of observable prices, where available, for interest rates, foreign exchange rates, option volatilities and other factors. Models are benchmarked and validated by an independent internal risk management function. Our valuation process takes into consideration factors such as counterparty credit quality, liquidity, concentration concerns and observability of model parameters. Valuation adjustments may be made to record financial instruments at fair value.

Most derivative contracts are valued using internally developed models which are calibrated to observable market data and employ standard market pricing theory for their valuations. An initial "risk-neutral" valuation is performed on each position assuming time-discounting based on an AA credit curve. Then, to arrive at a fair value that incorporates counterparty credit risk, a credit adjustment is made to these results by discounting each trade's expected exposures to the counterparty using the counterparty's credit spreads, as implied by the credit default swap market. We also adjust expected liabilities to the counterparty using BNY Mellon's own credit spreads, as implied by the credit default swap market. Accordingly, the valuation of our derivative positions is sensitive to the current changes in our own credit spreads as well as those of our counterparties.

In certain cases, recent prices may not be observable for instruments that trade in inactive or less active markets. Upon evaluating the uncertainty in valuing financial instruments subject to liquidity issues, we make an adjustment to their value. The determination of the liquidity adjustment includes the availability of external quotes, the time since the latest available quote and the price volatility of the instrument.

Certain parameters in some financial models are not directly observable and, therefore, are based on management's estimates and judgments. These financial instruments are normally traded less actively. We apply valuation adjustments to mitigate the possibility of error and revision in the model based estimate value. Examples include products where parameters such as correlation and recovery rates are unobservable.

The methods described above for instruments that trade in inactive or less active markets may produce a current fair value calculation that may not be indicative of net realizable value or reflective of future fair values. We believe our methods of determining fair value are appropriate and consistent with other market participants. However, the use of different methodologies or different assumptions to value certain financial instruments could result in a different estimate of fair value.

Valuation hierarchy

A three-level valuation hierarchy is used for disclosure of fair value measurements based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. The three levels are described below.

Level 1 : Inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets. Level 1 assets and liabilities include certain debt and equity securities, derivative financial instruments actively traded on exchanges and highly liquid government bonds .

Level 2 : Observable inputs other than Level 1 prices, for example, quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, and inputs that are observable or can be corroborated, either directly or indirectly, for substantially the full term of the financial instrument. Level 2 assets and liabilities include debt instruments that are traded less frequently than exchange-traded securities and derivative financial instruments whose model inputs are observable in the market or can be corroborated by market-observable data. Examples in this category are mortgage-backed securities, corporate debt securities and OTC derivative contracts.

Level 3 : Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

Valuation methodology

Following is a description of the valuation methodologies used for instruments measured at fair value, as well as the general classification of such instruments pursuant to the valuation hierarchy.

Securities

Where quoted prices are available in an active market, we classify the securities within Level 1 of the valuation hierarchy. Securities include both long and short positions. Level 1 securities include U.S. Treasury and certain sovereign debt securities that are actively traded in highly liquid OTC markets, money market funds and exchange-traded equities.

If quoted market prices are not available, we estimate fair values using pricing models, quoted prices of securities with similar characteristics or discounted cash flows. Examples of such instruments, which would generally be classified within Level 2 of the valuation hierarchy, include mortgage-backed securities, state and political subdivisions, certain sovereign debt, corporate bonds and foreign covered bonds.

For securities where quotes from recent transactions are not available for identical securities, we determine fair value primarily based on pricing sources with reasonable levels of price transparency that employ financial models or obtain comparison to similar instruments to arrive at “consensus” prices.

Specifically, the pricing sources obtain recent transactions for similar types of securities (e.g., vintage, position in the securitization structure) and ascertain variables such as discount rate and speed of prepayment for the types of transaction and apply such variables to similar types of bonds. We view these as observable transactions in the current marketplace and classify such securities as Level 2. Pricing sources discontinue pricing any specific security whenever they determine there is insufficient observable data to provide a good faith opinion on price.

In addition, we have significant investments in more actively traded agency RMBS and other types of securities such as sovereign debt. The pricing sources derive the prices for these securities largely from quotes they obtain from three major inter-dealer brokers.

In certain cases where there is limited activity or less transparency around inputs to the valuation, we classify those securities in Level 3 of the valuation hierarchy. Securities classified within Level 3 may include securities of state and political subdivisions and distressed debt securities.

At Dec. 31, 2017 , approximately 99% of our securities were valued by pricing sources with reasonable levels of price transparency. We have no instruments included in Level 3 of the valuation hierarchy.

Derivative financial instruments

We classify exchange-traded derivative financial instruments valued using quoted prices in Level 1 of the valuation hierarchy. Examples include exchange-traded equity and foreign exchange options. Since few other classes of derivative contracts are listed on an exchange, most of our derivative positions are valued using internally developed models that use as their basis readily observable market parameters, and we classify them in Level 2 of the valuation hierarchy. Such derivative financial instruments include swaps and options, foreign exchange spot and forward contracts and credit default swaps.

Derivatives valued using models with significant unobservable market parameters in markets that lack two-way flow are classified in Level 3 of the valuation hierarchy. Examples may include long-dated swaps and options, where parameters may be unobservable for longer maturities; and certain highly structured products, where correlation risk is unobservable. As of Dec. 31, 2017 we have no Level 3 derivatives. Additional disclosures of derivative instruments are provided in Note 21 of the Notes to Consolidated Financial Statements.

Seed capital

In our Investment Management business, we manage investment assets, including equities, fixed income, money market and multi-asset and alternative investment funds for institutions and other investors. As part of that activity, we make seed capital investments in certain funds. Seed capital is generally included in other assets on the consolidated balance sheet. When applicable, we value seed capital based on the published NAV of the fund.

For other types of investments in funds, we consider all of the rights and obligations inherent in our ownership interest, including the reported NAV as well as other factors that affect the fair value of our interest in the fund.

Interests in securitizations

For the interests in securitizations that are classified in securities available-for-sale, trading assets and long-term debt, we use discounted cash flow models, which generally include assumptions of projected finance charges related to the securitized assets, estimated net credit losses, prepayment assumptions and estimates of payments to third-party investors. When available, we compare our fair value estimates and assumptions to market activity and to the actual results of the securitized portfolio.

Other assets measured at NAV

BNY Mellon holds private equity investments, specifically SBICs, which are compliant with the Volcker Rule. There are no readily available market quotations for these investment partnerships. The fair value of the SBICs is based on our ownership percentage of the fair value of the underlying investments as provided by the partnership managers. These investments are typically valued on a quarterly basis. Our SBIC private equity investments are valued at NAV as a practical expedient for fair value.

The following tables present the financial instruments carried at fair value at Dec. 31, 2017 and Dec. 31, 2016 , by caption on the consolidated balance sheet and by the three-level valuation hierarchy. We have included credit ratings information in certain of the tables because the information indicates the degree of credit risk to which we are exposed, and significant changes in ratings classifications could result in increased risk for us. Beginning in 2017, we refined the methodology used to determine the level of the three-level valuation hierarchy for certain available-for-sale securities which resulted in most sovereign debt being transferred from Level 2 to Level 1 and most foreign covered bonds being transferred from Level 1 to Level 2. Prior period amounts were not adjusted.

Assets measured at fair value on a recurring basis at Dec. 31, 2017 *(dollar amounts in millions)*	Level 1	Level 2	Level 3	Netting *(a)*	Total carrying value
Available-for-sale securities:					
U.S. Treasury	$ 15,263	$ —	$ —	$ —	$ 15,263
U.S. government agencies	—	908	—	—	908
Sovereign debt/sovereign guaranteed	9,919	2,638	—	—	12,557
State and political subdivisions	—	2,957	—	—	2,957
Agency RMBS	—	23,819	—	—	23,819
Non-agency RMBS	—	487	—	—	487
Other RMBS	—	149	—	—	149
Commercial MBS	—	1,360	—	—	1,360
Agency commercial MBS	—	8,762	—	—	8,762
CLOs	—	2,909	—	—	2,909
Other asset-backed securities	—	1,043	—	—	1,043
Money market funds *(b)*	963	—	—	—	963
Corporate bonds	—	1,255	—	—	1,255
Other debt securities	—	3,491	—	—	3,491
Foreign covered bonds	—	2,529	—	—	2,529
Non-agency RMBS *(c)*	—	1,091	—	—	1,091
Total available-for-sale securities	26,145	53,398	—	—	79,543
Trading assets:					
Debt and equity instruments *(b)*	1,344	1,910	—	—	3,254
Derivative assets not designated as hedging:					
Interest rate	9	6,430	—	(5,075)	1,364
Foreign exchange	—	5,104	—	(3,720)	1,384
Equity and other contracts	—	70	—	(50)	20
Total derivative assets not designated as hedging	9	11,604	—	(8,845)	2,768
Total trading assets	1,353	13,514	—	(8,845)	6,022
Other assets:					
Derivative assets designated as hedging:					
Interest rate	—	278	—	—	278
Foreign exchange	—	45	—	—	45
Total derivative assets designated as hedging	—	323	—	—	323
Other assets *(d)*	144	170	—	—	314
Other assets measured at NAV *(d)*					154
Total other assets	144	493	—	—	791
Subtotal assets of operations at fair value	**27,642**	**67,405**	**—**	**(8,845)**	**86,356**
Percentage of assets of operations prior to netting	29%	71%	—%		
Assets of consolidated investment management funds	322	409	—	—	731
Total assets	**$ 27,964**	**$ 67,814**	**$ —**	**$ (8,845)**	**$ 87,087**
Percentage of total assets prior to netting	29%	71%	—%		

Liabilities measured at fair value on a recurring basis at Dec. 31, 2017 *(dollar amounts in millions)*	Level 1	Level 2	Level 3	Netting *(a)*	Total carrying value
Trading liabilities:					
Debt and equity instruments	$ 1,128	$ 80	$ —	$ —	$ 1,208
Derivative liabilities not designated as hedging:					
Interest rate	4	6,349	—	(5,495)	858
Foreign exchange	—	5,067	—	(3,221)	1,846
Equity and other contracts	—	153	—	(81)	72
Total derivative liabilities not designated as hedging	4	11,569	—	(8,797)	2,776
Total trading liabilities	1,132	11,649	—	(8,797)	3,984
Long-term debt *(b)*	—	367	—	—	367
Other liabilities – derivative liabilities designated as hedging:					
Interest rate	—	534	—	—	534
Foreign exchange	—	266	—	—	266
Total other liabilities – derivative liabilities designated as hedging	—	800	—	—	800
Subtotal liabilities of operations at fair value	**1,132**	**12,816**	**—**	**(8,797)**	**5,151**
Percentage of liabilities of operations prior to netting	8%	92%	—%		
Liabilities of consolidated investment management funds	1	1	—	—	2
Total liabilities	**$ 1,133**	**$ 12,817**	**$ —**	**$ (8,797)**	**$ 5,153**
Percentage of total liabilities prior to netting	8%	92%	—%		

(a) ASC 815, Derivatives and Hedging, permits the netting of derivative receivables and derivative payables under legally enforceable master netting agreements and permits the netting of cash collateral. Netting is applicable to derivatives not designated as hedging instruments included in trading assets or trading liabilities and derivatives designated as hedging instruments included in other assets or other liabilities. Netting is allocated to the derivative products based on the net fair value of each product.

(b) Includes certain interests in securitizations.

(c) Previously included in the Grantor Trust. The Grantor Trust was dissolved in 2011.

(d) Includes private equity investments and seed capital.

Assets measured at fair value on a recurring basis at Dec. 31, 2016 *(dollar amounts in millions)*	Level 1	Level 2	Level 3	Netting *(a)*	Total carrying value
Available-for-sale securities:					
U.S. Treasury	$ 14,307	$ —	$ —	$ —	$ 14,307
U.S. government agencies	—	359	—	—	359
Sovereign debt/sovereign guaranteed	66	12,423	—	—	12,489
State and political subdivisions	—	3,378	—	—	3,378
Agency RMBS	—	22,736	—	—	22,736
Non-agency RMBS	—	638	—	—	638
Other RMBS	—	513	—	—	513
Commercial MBS	—	928	—	—	928
Agency commercial MBS	—	6,449	—	—	6,449
CLOs	—	2,598	—	—	2,598
Other asset-backed securities	—	1,727	—	—	1,727
Equity securities	3	—	—	—	3
Money market funds *(b)*	842	—	—	—	842
Corporate bonds	—	1,396	—	—	1,396
Other debt securities	—	1,961	—	—	1,961
Foreign covered bonds	1,876	265	—	—	2,141
Non-agency RMBS *(c)*	—	1,357	—	—	1,357
Total available-for-sale securities	17,094	56,728	—	—	73,822
Trading assets:					
Debt and equity instruments *(b)*	240	2,013	—	—	2,253
Derivative assets not designated as hedging:					
Interest rate	4	7,583	—	(6,047)	1,540
Foreign exchange	—	6,104	—	(4,172)	1,932
Equity and other contracts	—	46	—	(38)	8
Total derivative assets not designated as hedging	4	13,733	—	(10,257)	3,480
Total trading assets	244	15,746	—	(10,257)	5,733
Other assets *:*					
Derivative assets designated as hedging:					
Interest rate	—	415	—	—	415
Foreign exchange	—	369	—	—	369
Total derivative assets designated as hedging	—	784	—	—	784
Other assets *(d)*	268	73	—	—	341
Other assets measured at NAV *(d)*					214
Total other assets	268	857	—	—	1,339
Subtotal assets of operations at fair value	17,606	73,331	—	(10,257)	80,894
Percentage of assets of operations prior to netting	19%	81%	—%		
Assets of consolidated investment management funds	464	767	—	—	1,231
Total assets	$ 18,070	$ 74,098	$ —	$ (10,257)	$ 82,125
Percentage of total assets prior to netting	20%	80%	—%		

Liabilities measured at fair value on a recurring basis at Dec. 31, 2016 *(dollar amounts in millions)*	Level 1	Level 2	Level 3	Netting *(a)*	Total carrying value
Trading liabilities:					
Debt and equity instruments	$ 349	$ 236	$ —	$ —	$ 585
Derivative liabilities not designated as hedging:					
Interest rate	4	7,629	—	(6,634)	999
Foreign exchange	—	6,103	—	(3,363)	2,740
Equity and other contracts	—	115	—	(50)	65
Total derivative liabilities not designated as hedging	4	13,847	—	(10,047)	3,804
Total trading liabilities	353	14,083	—	(10,047)	4,389
Long-term debt (*b*)	—	363	—	—	363
Other liabilities – derivative liabilities designated as hedging:					
Interest rate	—	545	—	—	545
Foreign exchange	—	52	—	—	52
Total other liabilities – derivative liabilities designated as hedging	—	597	—	—	597
Subtotal liabilities of operations at fair value	353	15,043	—	(10,047)	5,349
Percentage of liabilities of operations prior to netting	2%	98%	—%		
Liabilities of consolidated investment management funds	3	312	—	—	315
Total liabilities	$ 356	$ 15,355	$ —	$ (10,047)	$ 5,664
Percentage of total liabilities prior to netting	2%	98%	—%		

(a) ASC 815, Derivatives and Hedging, permits the netting of derivative receivables and derivative payables under legally enforceable master netting agreements and permits the netting of cash collateral. Netting is applicable to derivatives not designated as hedging instruments included in trading assets or trading liabilities and derivatives designated as hedging instruments included in other assets or other liabilities. Netting is allocated to the derivative products based on the net fair value of each product.
(b) Includes certain interests in securitizations.
(c) Previously included in the Grantor Trust. The Grantor Trust was dissolved in 2011.
(d) Includes private equity investments and seed capital.

Details of certain items measured at fair value on a recurring basis *(dollar amounts in millions)*	**Dec. 31, 2017** Total carrying value *(b)*	Ratings *(a)* AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower	Dec. 31, 2016 Total carrying value *(b)*	Ratings *(a)* AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower
Non-agency RMBS, originated in:										
2007	**$ 40**	**—%**	**—%**	**—%**	**100%**	$ 58	—%	—%	—%	100%
2006	**81**	**—**	**—**	**—**	**100**	98	—	—	—	100
2005	**142**	**19**	**3**	**17**	**61**	180	23	5	9	63
2004 and earlier	**224**	**4**	**3**	**34**	**59**	302	5	3	24	68
Total non-agency RMBS	**$ 487**	**7%**	**2%**	**21%**	**70%**	$ 638	9%	3%	14%	74%
Commercial MBS - Domestic, originated in:										
2009-2017	**$ 1,309**	**94%**	**6%**	**—%**	**—%**	$ 674	84%	16%	—%	—%
2008	**—**	**—**	**—**	**—**	**—**	14	100	—	—	—
2007	**—**	**—**	**—**	**—**	**—**	190	71	29	—	—
2006	**—**	**—**	**—**	**—**	**—**	3	7	93	—	—
Total commercial MBS - Domestic	**$ 1,309**	**94%**	**6%**	**—%**	**—%**	$ 881	81%	19%	—%	—%
Foreign covered bonds:										
Canada	**$ 1,659**	**100%**	**—%**	**—%**	**—%**	$ 1,320	100%	—%	—%	—%
Australia	**265**	**100**	**—**	**—**	**—**	40	100			
Netherlands	**178**	**100**	**—**	**—**	**—**	160	100			
United Kingdom	**103**	**100**	**—**	**—**	**—**	280	100			
Other	**324**	**100**	**—**	**—**	**—**	341	100	—	—	—
Total foreign covered bonds	**$ 2,529**	**100%**	**—%**	**—%**	**—%**	$ 2,141	100%	—%	—%	—%
European floating rate notes - available-for-sale:										
United Kingdom	**$ 130**	**81%**	**19%**	**—%**	**—%**	$ 379	90%	10%	—%	—%
Netherlands	**71**	**—**	**100**	**—**	**—**	125	100			
Ireland	**—**	**—**	**—**	**—**	**—**	58	—	—	100	—
Total European floating rate notes - available-for-sale	**$ 201**	**53%**	**47%**	**—%**	**—%**	$ 562	83%	7%	10%	—%
Sovereign debt/sovereign guaranteed:										
United Kingdom	**$ 3,052**	**100%**	**—%**	**—%**	**—%**	$ 3,209	100%	—%	—%	—%
France	**2,046**	**100**	**—**	**—**	**—**	1,998	100			
Spain	**1,635**	**—**	**—**	**100**	**—**	1,749	—	—	100	
Germany	**1,586**	**100**	**—**	**—**	**—**	1,347	100			
Italy	**1,292**	**—**	**—**	**100**	**—**	1,130	—	—	100	
Netherlands	**1,027**	**100**	**—**	**—**	**—**	1,061	100			
Ireland	**843**	**—**	**100**	**—**	**—**	736	—	100		
Belgium	**803**	**100**	**—**	**—**	**—**	1,005	100			
Other *(c)*	**273**	**50**	**—**	**—**	**50**	254	71	—	—	29
Total sovereign debt/sovereign guaranteed	**$ 12,557**	**69%**	**7%**	**23%**	**1%**	$ 12,489	70%	6%	23%	1%
Non-agency RMBS *(d)* , originated in:										
2007	**$ 311**	**—%**	**—%**	**—%**	**100%**	$ 387	—%	—%	—%	100%
2006	**306**	**—**	**—**	**—**	**100**	391	—	—	—	100
2005	**365**	**1**	**1**	**1**	**97**	437	—	2	1	97
2004 and earlier	**109**	**2**	**2**	**23**	**73**	142	2	2	17	79
Total non-agency RMBS *(d)*	**$ 1,091**	**—%**	**1%**	**3%**	**96%**	$ 1,357	—%	1%	2%	97%

(a) Represents ratings by S&P or the equivalent.

(b) At Dec. 31, 2017 and Dec. 31, 2016 , foreign covered bonds and sovereign debt/sovereign guaranteed securities were included in Level 1 and Level 2 in the valuation hierarchy. All other assets in the table are Level 2 assets in the valuation hierarchy.

(c) Includes non-investment grade sovereign debt/sovereign guaranteed securities related to Brazil of $136 million at Dec. 31, 2017 and $73 million at Dec. 31, 2016 .

(d) Previously included in the Grantor Trust. The Grantor Trust was dissolved in 2011.

Changes in Level 3 fair value measurements

risks of Level 3 financial instruments using securities and

Our classification of a financial instrument in Level 3 of the valuation hierarchy is based on the significance of the unobservable factors to the overall fair value measurement. However, these instruments generally include other observable components that are actively quoted or validated to third-party sources; accordingly, the gains and losses in the table below include changes in fair value due to observable parameters as well as the unobservable parameters in our valuation methodologies. We also manage the derivatives that are Level 1 or Level 2 instruments which are not included in the table; accordingly, the gains or losses below do not reflect the effect of our risk management activities related to the Level 3 instruments.

The Company has a Level 3 Pricing Committee which evaluates the valuation techniques used in determining the fair value of Level 3 assets and liabilities.

There were no financial instruments recorded at fair value on a recurring basis classified in Level 3 of the valuation hierarchy in 2017 .

The table below includes a roll forward of the balance sheet amount for the year ended Dec. 31, 2016 (including the change in fair value), for financial instruments classified in Level 3 of the valuation hierarchy.

Fair value measurements for assets using significant unobservable inputs *(in millions)*		Loans
Fair value at Dec. 31, 2015	$	
Transfers into Level 3		19
Total gains for the period included in earnings *(a)*		2
Purchases, issuances and sales:		
Purchases		113
Issuances		1
Sales		(135)
Fair value at Dec. 31, 2016	**$**	**—**
Change in unrealized gains for the period included in earnings for assets held at the end of the reporting period	$	—

(a) Reported in investment and other income.

Assets and liabilities measured at fair value on a nonrecurring basis

Under certain circumstances, we make adjustments to fair value our assets, liabilities and unfunded lending-related commitments although they are not measured at fair value on an ongoing basis. An example would be the recording of an impairment of an asset.

The following tables present the financial instruments carried on the consolidated balance sheet by caption and by level in the fair value hierarchy as of Dec. 31, 2017 and Dec. 31, 2016 , for which a nonrecurring change in fair value has been recorded during the years ended Dec. 31, 2017 and Dec. 31, 2016 .

Assets measured at fair value on a nonrecurring basis at Dec. 31, 2017

(in millions)		Level 1	Level 2	Level 3	Total carrying value
Loans *(a)*	$	— $	73 $	6 $	79
Other assets *(b)*		—	4	—	4
Total assets at fair value on a nonrecurring basis	**$**	**— $**	**77 $**	**6 $**	**83**

Assets measured at fair value on a nonrecurring basis at Dec. 31, 2016

(in millions)		Level 1	Level 2	Level 3	Total carrying value
Loans *(a)*	$	— $	84 $	7 $	91
Other assets *(b)*		—	4	—	4
Total assets at fair value on a nonrecurring basis	$	— $	88 $	7 $	95

(a) During the years ended Dec. 31, 2017 and Dec. 31, 2016 , the fair value of these loans decreased $1 million and $2 million , respectively, based on the fair value of the underlying collateral based on guidance in ASC 310, Receivables, with an offset to the allowance for credit losses.

(b) Includes other assets received in satisfaction of debt.

Estimated fair value of financial instruments

The carrying amounts of our financial instruments (i.e., monetary assets and liabilities) are determined under different accounting methods - see Note 1 of the Notes to Consolidated Financial Statements. The following disclosure discusses these instruments on a uniform fair value basis. However, active markets do not exist for a significant portion of these instruments. For financial instruments where quoted prices from identical assets and liabilities in active markets do not exist, we determine fair value based on discounted cash flow analysis and comparison to similar instruments. Discounted cash flow analysis is dependent upon estimated future cash flows and the level of interest rates. Other judgments would result in different fair values. The fair value information supplements the basic financial statements and other traditional financial data presented throughout this report.

A summary of the practices used for determining fair value and the respective level in the valuation hierarchy for financial assets and liabilities not recorded at fair value follows.

Interest-bearing deposits with the Federal Reserve and other central banks and interest-bearing deposits with banks

The estimated fair value of interest-bearing deposits with the Federal Reserve and other central banks is equal to the book value as these interest-bearing deposits are generally considered cash equivalents. These instruments are classified as Level 2 within the valuation hierarchy. The estimated fair value of interest-bearing deposits with banks is generally determined using discounted cash flows and duration of the instrument to maturity. The primary inputs used to value these transactions are interest rates based on current LIBOR market rates and time to maturity. Interest-bearing deposits with banks are classified as Level 2 within the valuation hierarchy.

Federal funds sold and securities purchased under resale agreements

The estimated fair value of federal funds sold and securities purchased under resale agreements is based on inputs such as interest rates and tenors. Federal funds sold and securities purchased under resale agreements are classified as Level 2 within the valuation hierarchy.

Securities held-to-maturity

Where quoted prices are available in an active market for identical assets and liabilities, we classify the securities as Level 1 within the valuation hierarchy. Level 1 securities include U.S. Treasury securities and certain sovereign debt securities.

If quoted market prices are not available for identical assets, we estimate fair value using pricing models, quoted prices of securities with similar characteristics or discounted cash flows. Examples of such instruments, which would generally be classified as Level 2 within the valuation hierarchy, include certain mortgage-backed securities and state and political subdivision securities. For securities where quotes from active markets are not available for identical securities, we determine fair value primarily based on pricing sources with reasonable levels of price transparency that employ financial models or obtain comparison to similar instruments to arrive at “consensus” prices.

Specifically, the pricing sources obtain active market prices for similar types of securities (e.g., vintage, position in the securitization structure) and ascertain variables such as discount rate and speed of prepayment for the types of transaction and apply such variables to similar types of bonds. We view these as observable transactions in the current marketplace and classify such securities as Level 2 within the valuation hierarchy.

Loans

For residential mortgage loans, fair value is estimated using discounted cash flow analysis, adjusting where appropriate for prepayment estimates, using interest rates currently being offered for loans with similar terms and maturities to borrowers. The estimated fair value of margin loans and overdrafts is equal to the book value due to the short-term nature of these assets. The estimated fair value of other types of loans, including our term loan program, is determined using discounted cash flows. Inputs include current LIBOR market rates adjusted for credit spreads. These loans are generally classified as Level 2 within the valuation hierarchy.

Other financial assets

Other financial assets include cash, the Federal Reserve Bank stock and accrued interest receivable. Cash is classified as Level 1 within the valuation hierarchy. The Federal Reserve Bank stock is not redeemable or transferable. The estimated fair value of the Federal Reserve Bank stock is based on the issue price and is classified as Level 2 within the valuation hierarchy. Accrued interest receivable is generally short-term. As a result, book value is considered to equal fair value. Accrued interest receivable is included as Level 2 within the valuation hierarchy.

Noninterest-bearing and interest-bearing deposits

Interest-bearing deposits consist of money market rate and demand deposits, savings deposits and time deposits. Except for time deposits, book value is considered to equal fair value for these deposits due to their short duration to maturity or payable on demand feature. The estimated fair value of interest-bearing time deposits is determined using discounted cash flow analysis. The primary inputs used to value these transactions are interest rates based on current LIBOR market rates and time to maturity. For all noninterest-bearing deposits, book value is considered to equal fair value as a result of the short duration of the deposit. Interest-bearing and noninterest-bearing deposits are classified as Level 2 within the valuation hierarchy.

Federal funds purchased and securities sold under repurchase agreements

The estimated fair value of federal funds purchased and securities sold under repurchase agreements is based on inputs such as interest rates and tenors. Federal funds purchased and securities sold under repurchase agreements are classified as Level 2 within the valuation hierarchy.

Payables to customers and broker-dealers

The estimated fair value of payables to customers and broker-dealers is equal to the book value, due to the demand feature of the payables to customers and broker-dealers, and is classified as Level 2 within the valuation hierarchy.

Commercial paper

The estimated fair value of our commercial paper is based on discount and duration of the commercial paper. Our commercial paper matures within 397 days from date of issue and is not redeemable prior to maturity or subject to voluntary prepayment. Our commercial paper is included in Level 2 of the valuation hierarchy.

Borrowings

Borrowings primarily consist of borrowings from the FHLB, overdrafts of sub-custodian account balances in our Investment Services businesses and accrued interest payable. The estimated fair value of borrowings from the FHLB is considered equal to book value, due to the short duration to maturity and is classified as Level 2 within the valuation hierarchy. The estimated fair value of overdrafts of subcustodian account balances in our Investment Services businesses is considered to equal book value as a result of the short duration of the overdrafts and is included as Level 2 within the valuation hierarchy. Overdrafts are typically repaid within two days. Accrued interest payable is generally short-term. As a result, book value is considered to equal fair value. Accrued interest payable is included as Level 2 within the valuation hierarchy.

Long-term debt

The estimated fair value of long-term debt is based on current rates for instruments of the same remaining maturity or quoted market prices for the same or similar issues. Long-term debt is classified as Level 2 within the valuation hierarchy.

The following tables present the estimated fair value and the carrying amount of financial instruments not carried at fair value on the consolidated balance sheet at Dec. 31, 2017 and Dec. 31, 2016 , by caption on the consolidated balance sheet and by the valuation hierarchy.

Summary of financial instruments	**Dec. 31, 2017**				
(in millions)	**Level 1**	**Level 2**	**Level 3**	**Total estimated fair value**	**Carrying amount**
Assets:					
Interest-bearing deposits with the Federal Reserve and other central banks	**$ —**	**$ 91,510**	**$ —**	**$ 91,510**	**$ 91,510**
Interest-bearing deposits with banks	**—**	**11,982**	**—**	**11,982**	**11,979**
Federal funds sold and securities purchased under resale agreements	**—**	**28,135**	**—**	**28,135**	**28,135**
Securities held-to-maturity	**11,365**	**29,147**	**—**	**40,512**	**40,827**
Loans *(a)*	**—**	**60,219**	**—**	**60,219**	**60,082**
Other financial assets	**5,382**	**1,244**	**—**	**6,626**	**6,626**
Total	**$ 16,747**	**$ 222,237**	**$ —**	**$ 238,984**	**$ 239,159**
Liabilities:					
Noninterest-bearing deposits	**$ —**	**$ 82,716**	**$ —**	**$ 82,716**	**$ 82,716**
Interest-bearing deposits	**—**	**160,042**	**—**	**160,042**	**161,606**
Federal funds purchased and securities sold under repurchase agreements	**—**	**15,163**	**—**	**15,163**	**15,163**
Payables to customers and broker-dealers	**—**	**20,184**	**—**	**20,184**	**20,184**
Commercial paper	**—**	**3,075**	**—**	**3,075**	**3,075**
Borrowings	**—**	**2,931**	**—**	**2,931**	**2,931**
Long-term debt	**—**	**27,789**	**—**	**27,789**	**27,612**
Total	**$ —**	**$ 311,900**	**$ —**	**$ 311,900**	**$ 313,287**

(a) Does not include the leasing portfolio.

Summary of financial instruments	Dec. 31, 2016				
(in millions)	Level 1	Level 2	Level 3	Total estimated fair value	Carrying amount
Assets:					
Interest-bearing deposits with the Federal Reserve and other central banks	$ —	$ 58,041	$ —	$ 58,041	$ 58,041
Interest-bearing deposits with banks	—	15,091	—	15,091	15,086
Federal funds sold and securities purchased under resale agreements	—	25,801	—	25,801	25,801
Securities held-to-maturity	11,173	29,496	—	40,669	40,905
Loans *(a)*		62,829	—	62,829	62,564
Other financial assets	4,822	1,112	—	5,934	5,934
Total	$ 15,995	$ 192,370	$ —	$ 208,365	$ 208,331
Liabilities:					
Noninterest-bearing deposits	$ —	$ 78,342	$ —	$ 78,342	$ 78,342
Interest-bearing deposits	—	141,418	—	141,418	143,148
Federal funds purchased and securities sold under repurchase agreements	—	9,989	—	9,989	9,989
Payables to customers and broker-dealers	—	20,987	—	20,987	20,987
Borrowings	—	960	—	960	960
Long-term debt	—	24,184	—	24,184	24,100
Total	$ —	$ 275,880	$ —	$ 275,880	$ 277,526

(a) Does not include the leasing portfolio.

The table below summarizes the carrying amount of the hedged financial instruments, the notional amount of the hedge and the unrealized gain (loss) (estimated fair value) of the derivatives.

Hedged financial instruments			Unrealized	
(in millions)	Carrying amount	Notional amount of hedge	Gain	(Loss)
Dec. 31, 2017				
Securities available-for-sale	**$ 12,307**	**$ 12,365**	**$ 102**	**$ (301)**
Long-term debt	**23,821**	**23,950**	**175**	**(233)**
Dec. 31, 2016				
Securities available-for-sale	$ 9,184	$ 9,233	$ 83	$ (342)
Long-term debt	20,511	20,450	330	(203)

Note 19 - Fair value option

We elected fair value as an alternative measurement for selected financial assets and liabilities. The following table presents the assets and liabilities of consolidated investment management funds, at fair value.

Assets and liabilities of consolidated investment management funds, at fair value	Dec. 31,	
(in millions)	**2017**	2016
Assets of consolidated investment management funds:		
Trading assets	**$ 516**	$ 979
Other assets	**215**	252
Total assets of consolidated investment management funds	**$ 731**	$ 1,231
Liabilities of consolidated investment management funds:		

BNY Mellon values the assets and liabilities of its consolidated investment management funds using quoted prices for identical assets or liabilities in active markets or observable inputs such as quoted prices for similar assets or liabilities. Quoted prices for either identical or similar assets or liabilities in inactive markets may also be used. Accordingly, fair value best reflects the interests BNY Mellon holds in the economic performance of the consolidated investment management funds. Changes in the value of the assets and liabilities are recorded in the income statement as investment income of consolidated investment management funds and in the interest of investment management fund note holders, respectively.

We have elected the fair value option on $240 million of long-term debt. The fair value of this long-term debt was $367 million at Dec. 31, 2017 and $363 million at Dec. 31, 2016 . The long-term debt is

Trading liabilities	**$**	**—** $	282
Other liabilities		**2**	33
Total liabilities of consolidated investment management funds	**$**	**2** $	315

valued using observable market inputs and is included in Level 2 of the valuation hierarchy.

The following table presents the changes in fair value of long-term debt and certain loans for which we elected the fair value option that we previously held in 2016 and 2015 , and the location of the changes in the income statement. There were no loans valued under the fair value option election at Dec. 31, 2017 and Dec. 31, 2016 .

Impact of changes in fair value in the income statement *(a)*	Year ended Dec. 31,		
(in millions)	**2017**	2016	2015
Loans:			
Investment and other income	**$ —**	$ 12	$ 3
Long-term debt:			
Foreign exchange and other trading revenue	**$ (4)**	$ (4)	$ (12)

(a) *The changes in fair value of the loans and long-term debt are approximately offset by economic hedges included in foreign exchange and other trading revenue.*

Note 20 - Commitments and contingent liabilities

Off-balance sheet arrangements

In the normal course of business, various commitments and contingent liabilities are outstanding that are not reflected in the accompanying consolidated balance sheets.

Our significant trading and off-balance sheet risks are securities, foreign currency and interest rate risk management products, commercial lending commitments, letters of credit and securities lending indemnifications. We assume these risks to reduce interest rate and foreign currency risks, to provide customers with the ability to meet credit and liquidity needs and to hedge foreign currency and interest rate risks. These items involve, to varying degrees, credit, foreign currency and interest rate risk not recognized on the balance sheet. Our off-balance sheet risks are managed and monitored in manners similar to those used for on-balance sheet risks.

The following table presents a summary of our off-balance sheet credit risks.

Off-balance sheet credit risks	**Dec. 31,**	
(in millions)	**2017**	2016
Lending commitments	**$ 51,467**	$ 51,270
Standby letters of credit *(a)*	**3,531**	4,185
Commercial letters of credit	**122**	339
Securities lending indemnifications *(b)(c)*	**432,084**	317,690

(a) *Net of participations totaling $672 million at Dec. 31, 2017 and $662 million at Dec. 31, 2016 .*

(b) *Excludes the indemnification for securities for which BNY Mellon acts as an agent on behalf of CIBC Mellon clients, which totaled $69 billion at Dec. 31, 2017 and $61 billion at Dec. 31, 2016 .*

(c) *Includes cash collateral, invested in indemnified repurchase agreements, held by us as securities lending agent of $33 billion at Dec. 31, 2017 and $28 billion at Dec. 31, 2016 .*

The total potential loss on undrawn lending commitments, standby and commercial letters of credit, and securities lending indemnifications is equal to the total notional amount if drawn upon, which does not consider the value of any collateral.

Since many of the lending commitments are expected to expire without being drawn upon, the total amount does not necessarily represent future cash requirements. A summary of lending commitment maturities is as follows: $30.1 billion in less than one year, $21.2 billion in one to five years and $197 million over five years.

SBLCs principally support obligations of corporate clients and were collateralized with cash and securities of $160 million at Dec. 31, 2017 and $293 million at Dec. 31, 2016 . At Dec. 31, 2017 , $2.5 billion of the SBLCs will expire within one year and $1.0 billion in one to five years.

We must recognize, at the inception of an SBLC and foreign and other guarantees, a liability for the fair value of the obligation undertaken in issuing the guarantee. The fair value of the liability, which was recorded with a corresponding asset in other assets, was estimated as the present value of contractual customer fees. The estimated liability for losses related to SBLCs and foreign and other guarantees, if any, is included in the allowance for lending-related commitments. The allowance for lending-related commitments was $102 million at Dec. 31, 2017 and $112 million at Dec. 31, 2016 .

Payment/performance risk of SBLCs is monitored using both historical performance and internal ratings criteria. BNY Mellon's historical experience is that SBLCs typically expire without being funded. SBLCs below investment grade are monitored closely for payment/performance risk. The table below shows SBLCs by investment grade:

Standby letters of credit	Dec. 31,	
	2017	2016
Investment grade	**84%**	89%
Non-investment grade	**16%**	11%

A commercial letter of credit is normally a short-term instrument used to finance a commercial contract for the shipment of goods from a seller to a buyer. Although the commercial letter of credit is contingent upon the satisfaction of specified conditions, it represents a credit exposure if the buyer defaults on the underlying transaction. As a result, the total contractual amounts do not necessarily represent future cash requirements. Commercial letters of credit totaled $122 million at Dec. 31, 2017 and $339 million at Dec. 31, 2016 .

We expect many of the lending commitments and letters of credit to expire without the need to advance any cash. The revenue associated with guarantees frequently depends on the credit rating of the obligor and the structure of the transaction, including collateral, if any.

A securities lending transaction is a fully collateralized transaction in which the owner of a security agrees to lend the security (typically through an agent, in our case, The Bank of New York Mellon), to a borrower, usually a broker-dealer or bank, on an open, overnight or term basis, under the terms of a prearranged contract.

We typically lend securities with indemnification against borrower default. We generally require the borrower to provide collateral with a minimum value of 102% of the fair value of the securities borrowed, which is monitored on a daily basis, thus reducing credit risk. Market risk can also arise in securities lending transactions. These risks are controlled through policies limiting the level of risk that can be undertaken. Securities lending transactions are generally entered into only with highly rated counterparties. Securities lending indemnifications were secured by collateral of $451 billion at Dec. 31, 2017 and $331 billion at Dec. 31, 2016 .

CIBC Mellon, a joint venture between BNY Mellon and the Canadian Imperial Bank of Commerce ("CIBC"), engages in securities lending activities. CIBC Mellon, BNY Mellon and CIBC jointly and severally indemnify securities lenders against specific types of borrower default. At Dec. 31, 2017 and Dec. 31, 2016 , $69 billion and $61 billion , respectively, of borrowings at CIBC Mellon, for which BNY Mellon acts as agent on behalf of CIBC Mellon clients, were secured by collateral of $73 billion and $64 billion , respectively. If, upon a default, a borrower's collateral was not sufficient to cover its related obligations, certain losses related to the indemnification could be covered by the indemnitors.

Industry concentrations

We have significant industry concentrations related to credit exposure at Dec. 31, 2017 . The tables below present our credit exposure in the financial institutions and commercial portfolios.

Financial institutions portfolio exposure *(in billions)*	Dec. 31, 2017		
	Loans	**Unfunded commitments**	**Total exposure**
Securities industry	**$ 3.6**	**$ 19.2**	**$ 22.8**
Banks	**7.0**	**1.2**	**8.2**
Asset managers	**1.4**	**6.4**	**7.8**
Insurance	**0.1**	**3.5**	**3.6**
Government	**0.1**	**0.9**	**1.0**
Other	**0.9**	**1.3**	**2.2**
Total	**$ 13.1**	**$ 32.5**	**$ 45.6**

Commercial portfolio exposure *(in billions)*	Dec. 31, 2017		
	Loans	**Unfunded commitments**	**Total exposure**
Manufacturing	**$ 1.3**	**$ 6.1**	**$ 7.4**
Services and other	**0.9**	**6.0**	**6.9**
Energy and utilities	**0.7**	**4.4**	**5.1**
Media and telecom	**—**	**1.5**	**1.5**
Total	**$ 2.9**	**$ 18.0**	**$ 20.9**

Major concentrations in securities lending are primarily to broker-dealers and are generally collateralized with cash and/or securities.

Operating leases

Net rent expense for premises and equipment was $285 million in 2017 , $301 million in 2016 and $329 million in 2015 .

At Dec. 31, 2017 , we were obligated under various noncancelable lease agreements, some of which provide for additional rents based upon real estate taxes, insurance and maintenance and for various renewal options. A summary of the future minimum rental commitments under noncancelable operating leases, net of related sublease revenue, is as follows: 2018 — $292 million ; 2019 — $279 million ; 2020 — $262 million ; 2021 — $227 million ; 2022 — $204 million and 2023 and thereafter— $754 million .

Exposure for certain administrative errors

In connection with certain offshore tax-exempt funds that we manage, we may be liable to the funds for certain administrative errors. The errors relate to the resident status of such funds, potentially exposing the Company to a tax liability related to the funds' earnings. The Company is in discussions with tax authorities regarding the funds. We believe we are appropriately accrued and the additional reasonably possible exposure is not significant.

Indemnification arrangements

We have provided standard representations for underwriting agreements, acquisition and divestiture agreements, sales of loans and commitments, and other similar types of arrangements and customary indemnification for claims and legal proceedings related to providing financial services that are not otherwise included above. Insurance has been purchased to mitigate certain of these risks. Generally, there are no stated or notional amounts included in these indemnifications and the contingencies triggering the obligation for indemnification are not expected to occur. Furthermore, often counterparties to these transactions provide us with comparable indemnifications. We are unable to develop an estimate of the maximum payout under these indemnifications for several reasons. In addition to the lack of a stated or notional amount in a majority of such indemnifications, we are unable to predict the nature of events that would trigger indemnification or the level of indemnification for a certain event. We believe, however, that the possibility that we will have to make any material payments for these indemnifications is remote. At Dec. 31, 2017 and Dec. 31, 2016 , we have not recorded any material liabilities under these arrangements.

Clearing and settlement exchanges

We are a noncontrolling equity investor in, and/or member of, several industry clearing or settlement exchanges through which foreign exchange, securities, derivatives or other transactions settle. Certain of these industry clearing and settlement exchanges require their members to guarantee their obligations and liabilities and/or to provide liquidity support in the event other members do not honor their obligations. We believe the likelihood that a clearing or settlement exchange (of which we are a member) would become insolvent is remote. Additionally, certain settlement exchanges have implemented loss allocation policies that enable the exchange to allocate settlement losses to the members of the exchange. It is not possible to quantify such mark-to-market loss until the loss occurs. Any ancillary costs that occur as a result of any mark-to-market loss cannot be quantified. In addition, we also sponsor clients as members on clearing and settlement exchanges and guarantee their obligations. At Dec. 31, 2017 and Dec. 31, 2016 , we have not recorded any material liabilities under these arrangements.

Legal proceedings

In the ordinary course of business, BNY Mellon and its subsidiaries are routinely named as defendants in or made parties to pending and potential legal actions. We also are subject to governmental and regulatory examinations, information-gathering requests, investigations and proceedings (both formal and informal). Claims for significant monetary damages are often asserted in many of these legal actions, while claims for disgorgement, restitution, penalties and/or other remedial actions or sanctions may be sought in governmental and regulatory matters. It is inherently difficult to predict the eventual outcomes of such matters given their complexity and the particular facts and circumstances at issue in each of these matters. However, on the basis of our current knowledge and understanding, we do not believe that judgments, settlements or orders, if any, arising from these matters (either individually or in the aggregate, after giving effect to applicable reserves and insurance coverage) will have a material adverse effect on the consolidated financial position or liquidity of BNY Mellon, although they could have a material effect on net income in a given period.

In view of the inherent unpredictability of outcomes in litigation and governmental and regulatory matters, particularly where (i) the damages sought are substantial or indeterminate, (ii) the proceedings are in the early stages, or (iii) the matters involve novel legal theories or a large number of parties, as a matter of course there is considerable uncertainty surrounding the timing or ultimate resolution of litigation and governmental and regulatory matters, including a possible eventual loss, fine, penalty or business impact, if any, associated with each such matter. In accordance with applicable accounting guidance, BNY Mellon establishes accruals for litigation and governmental and regulatory matters when those matters proceed to a stage where they present loss contingencies that are both probable and reasonably estimable. In such cases, there may be a possible exposure to loss in excess of any amounts accrued. BNY Mellon will continue to monitor such matters for developments that could affect the amount of the accrual, and will adjust the accrual amount as appropriate. If the loss contingency in question is not both probable and reasonably estimable, BNY Mellon does not establish an accrual and the matter will continue to be monitored for any developments that would make the loss contingency both probable and reasonably estimable. BNY Mellon believes that its accruals for legal proceedings are appropriate and, in the aggregate, are not material to the consolidated financial position of BNY Mellon, although future accruals could have a material effect on net income in a given period.

For certain of those matters described here for which a loss contingency may, in the future, be reasonably possible (whether in excess of a related accrued liability or where there is no accrued liability), BNY Mellon is currently unable to estimate a range of reasonably possible loss. For those matters described here where BNY Mellon is able to estimate a reasonably possible loss, the aggregate range of such reasonably possible loss is up to $840 million in excess of the accrued liability (if any) related to those matters.

The following describes certain judicial, regulatory and arbitration proceedings involving BNY Mellon:

Mortgage-Securitization Trusts Proceedings

The Bank of New York Mellon has been named as a defendant in a number of legal actions brought by MBS investors alleging that the trustee has expansive duties under the governing agreements, including the duty to investigate and pursue breach of representation and warranty claims against other parties to the MBS transactions. These actions include a lawsuit brought in New York State court on June 18, 2014, and later re-filed in federal court, by a group of institutional investors who purport to sue on behalf of 249 MBS trusts.

Matters Related to R. Allen Stanford

In late December 2005, Pershing LLC (“Pershing”) became a clearing firm for Stanford Group Co. (“SGC”), a registered broker-dealer that was part of a group of entities ultimately controlled by R. Allen Stanford (“Stanford”). Stanford International Bank (“SIB”), also controlled by Stanford, issued certificates of deposit (“CDs”). Some investors allegedly wired funds from their SGC accounts to purchase CDs. In 2009, the SEC charged Stanford with operating a Ponzi scheme in connection with the sale of CDs, and SGC was placed into receivership. Alleged purchasers of CDs have filed 15 lawsuits against Pershing that are pending in Texas, including two putative class actions. The purchasers allege that Pershing, as SGC’s clearing firm, assisted Stanford in a fraudulent scheme and assert contractual, statutory and common law claims. In addition, two FINRA arbitration proceedings have been initiated by alleged purchasers asserting similar claims.

Brazilian Postalis Litigation

BNY Mellon Servicos Financeiros DTVM S.A. (“DTVM”), a subsidiary that provides a number of asset services in Brazil, acts as administrator for certain investment funds in which the exclusive investor is a public pension fund for postal workers called Postalis-Instituto de Seguridade Social dos Correios e Telégrafos (“Postalis”). On Aug. 22, 2014, Postalis sued DTVM in Rio de Janeiro, Brazil for losses related to a Postalis investment fund for which DTVM serves as fund administrator. Postalis alleges that DTVM failed to properly perform alleged duties, including duties to conduct due diligence of and exert control over the fund manager, Atlântica Administração de Recursos (“Atlântica”), and Atlântica’s investments. On March 12, 2015, Postalis filed a lawsuit in Rio de Janeiro against DTVM and BNY Mellon Administração de Ativos Ltda. (“Ativos”) alleging failure to properly perform alleged duties relating to another fund of which DTVM is administrator and Ativos is investment manager. On Dec. 14, 2015, Associaceão Dos Profissionais Dos Correiros (“ADCAP”), a Brazilian postal workers association, filed a lawsuit in São Paulo against DTVM and other defendants alleging that DTVM improperly contributed to investment losses in the Postalis portfolio. On March 20, 2017, the lawsuit was dismissed without prejudice, and ADCAP has appealed that decision. On Dec. 17, 2015, Postalis filed three additional lawsuits in Rio de Janeiro against DTVM and Ativos alleging failure to properly perform alleged duties and liabilities for losses with respect to investments in several other funds. On Feb. 4, 2016, Postalis filed another lawsuit in Brasilia against DTVM, Ativos and BNY Mellon Alocação de Patrimônio Ltda., an investment management subsidiary, alleging failure to properly perform duties and liability for losses with respect to investments in various other funds of which the defendants were administrator and/or manager. The lawsuit has been transferred to São Paulo. On Jan. 16, 2018, the Brazilian Federal Prosecutor's Office filed a civil lawsuit in São Paulo against DTVM alleging liability for Postalis losses based on alleged failures by DTVM to properly perform certain duties while acting as administrator and/or manager to certain funds in which Postalis invested.

Depositary Receipt Litigation

Between late December 2015 and February 2016, four putative class action lawsuits were filed against BNY Mellon asserting claims relating to BNY Mellon's foreign exchange pricing when converting dividends and other distributions from non-U.S. companies in its role as depositary bank to Depositary Receipt issuers. The claims are for breach of contract and violations of ERISA. The lawsuits have been consolidated into two suits that are pending in federal court in the Southern District of New York.

Brazilian Silverado Litigation

DTVM acts as administrator for the Fundo de Investimento em Direitos Creditórios Multisetorial Silverado Maximum ("Silverado Maximum Fund"), which invests in commercial credit receivables. On June 2, 2016, the Silverado Maximum Fund sued DTVM in its capacity as administrator, along with Deutsche Bank S.A. - Banco Alemão in its capacity as custodian and Silverado Gestão e Investimentos Ltda. in its capacity as investment manager. The Fund alleges that each of the defendants failed to fulfill its respective duty, and caused losses to the Fund for which the defendants are jointly and severally liable.

Depositary Receipt Pre-Release Inquiry

In March 2014, the Staff of the U.S. Securities and Exchange Commission's Enforcement Division (the "Staff") commenced an investigation into certain issuers of American Depositary Receipts ("ADRs"), including BNY Mellon, for the period of 2011 to 2015. The Staff has issued several requests to BNY Mellon for information relating to the prerelease of ADRs. In May 2017, BNY Mellon began discussions with the Staff about a possible resolution of the investigation. BNY Mellon has fully cooperated with this matter.

Note 21 - Derivative instruments

We use derivatives to manage exposure to market risk, including interest rate risk, equity price risk and foreign currency risk, as well as credit risk. Our trading activities are focused on acting as a market-maker for our customers and facilitating customer trades in compliance with the Volcker Rule.

The notional amounts for derivative financial instruments express the dollar volume of the transactions; however, credit risk is much smaller. We perform credit reviews and enter into netting agreements and collateral arrangements to minimize the credit risk of derivative financial instruments. We enter into offsetting positions to reduce exposure to foreign currency, interest rate and equity price risk.

Use of derivative financial instruments involves reliance on counterparties. Failure of a counterparty to honor its obligation under a derivative contract is a risk we assume whenever we engage in a derivative contract. There were no counterparty default losses recorded in 2017 or 2016 .

Hedging derivatives

We utilize interest rate swap agreements to manage our exposure to interest rate fluctuations. For hedges of available-for-sale investment securities, deposits and long-term debt, the hedge documentation specifies the terms of the hedged items and the interest rate swaps and indicates that the derivative is hedging a fixed rate item and is a fair value hedge, that the hedge exposure is to the changes in the fair value of the hedged item due to changes in benchmark interest rates, and that the strategy is to eliminate fair value variability by converting fixed rate interest payments to LIBOR.

The available-for-sale investment securities hedged consist of U.S. Treasury bonds, agency commercial MBS, sovereign debt and covered bonds that had original maturities of 30 years or less at initial purchase. At Dec. 31, 2017 , $12.3 billion face amount of available-for-sale securities were hedged with interest rate swaps designated as fair value hedges that had notional values of $12.3 billion .

The fixed rate long-term debt instruments hedged generally have original maturities of five to 30 years. We issue both callable and non-callable debt. The debt is hedged with "receive fixed rate, pay variable rate" swaps. At Dec. 31, 2017 , $24.0 billion par value of debt was hedged with interest rate swaps that had notional values of $24.0 billion .

In addition, we enter into foreign exchange hedges. We use forward foreign exchange contracts with maturities of 15 months or less to hedge our Indian rupee, British pound, Hong Kong dollar, Singapore dollar, Canadian dollar and Polish zloty foreign exchange exposure with respect to foreign currency forecasted revenue and expense transactions in entities that have the U.S. dollar as their functional currency. As of Dec. 31, 2017 , the hedged forecasted foreign currency transactions and designated forward foreign exchange contract hedges were $415 million (notional), with a pre-tax gain of $12 million recorded in accumulated other comprehensive income. This gain will be reclassified to income or expense over the next 12 months .

Forward foreign exchange contracts are also used to hedge the value of our net investments in foreign subsidiaries. These forward foreign exchange contracts have maturities of less than one year . The derivatives employed are designated as hedges of changes in value of our foreign investments due to exchange rates. Changes in the value of the forward foreign exchange contracts offset the changes in value of the foreign investments due to changes in foreign exchange rates. The change in fair market value of these forward foreign exchange contracts is deferred and reported within foreign currency translation adjustments in shareholders' equity, net of tax. At Dec. 31, 2017 , forward foreign exchange contracts with notional amounts totaling $8.3 billion were designated as hedges.

In addition to forward foreign exchange contracts, we also designate non-derivative financial instruments as hedges of our net investments in foreign subsidiaries. Those non-derivative financial instruments designated as hedges of our net investments in foreign subsidiaries were all long-term liabilities of BNY Mellon in various currencies, and, at Dec. 31, 2017 , had a combined U.S. dollar equivalent value of $184 million .

Ineffectiveness related to derivatives and hedging relationships was recorded in income as follows:

Ineffectiveness	Year ended Dec. 31,		
(in millions)	**2017**	2016	2015
Fair value hedges of securities	**$ (14.8)**	$ (0.5)	$ 4.1
Fair value hedges of long-term debt	**(6.7)**	(3.1)	(6.3)
Cash flow hedges	**6.0**		
Other *(a)*			
Total	**$ (15.5)**	$ (3.6)	$ (2.2)

(a) Includes ineffectiveness recorded on net investment foreign exchange hedges.

The following table summarizes the notional amount and credit exposure of our total derivative portfolio at Dec. 31, 2017 and Dec. 31, 2016 .

Impact of derivative instruments on the balance sheet *(in millions)*	Notional value **Dec. 31, 2017**	Notional value Dec. 31, 2016	Asset derivatives fair value **Dec. 31, 2017**	Asset derivatives fair value Dec. 31, 2016	Liability derivatives fair value **Dec. 31, 2017**	Liability derivatives fair value Dec. 31, 2016
Derivatives designated as hedging instruments: *(a)*						
Interest rate contracts	**$ 36,315**	$ 29,683	**$ 278**	$ 415	**$ 534**	$ 545
Foreign exchange contracts	**8,923**	7,796	**45**	369	**266**	52
Total derivatives designated as hedging instruments			**$ 323**	$ 784	**$ 800**	$ 597
Derivatives not designated as hedging instruments: *(b)*						
Interest rate contracts	**$ 267,485**	$ 325,412	**$ 6,439**	$ 7,587	**$ 6,353**	$ 7,633
Foreign exchange contracts	**767,999**	530,729	**5,104**	6,104	**5,067**	6,103
Equity contracts	**1,698**	1,167	**70**	46	**149**	112
Credit contracts	**180**	160	**—**	—	**4**	3
Total derivatives not designated as hedging instruments			**$ 11,613**	$ 13,737	**$ 11,573**	$ 13,851
Total derivatives fair value *(c)*			**$ 11,936**	$ 14,521	**$ 12,373**	$ 14,448
Effect of master netting agreements *(d)*			**(8,845)**	(10,257)	**(8,797)**	(10,047)
Fair value after effect of master netting agreements			**$ 3,091**	$ 4,264	**$ 3,576**	$ 4,401

(a) The fair value of asset derivatives and liability derivatives designated as hedging instruments is recorded as other assets and other liabilities, respectively, on the balance sheet.
(b) The fair value of asset derivatives and liability derivatives not designated as hedging instruments is recorded as trading assets and trading liabilities, respectively, on the balance sheet.
(c) Fair values are on a gross basis, before consideration of master netting agreements, as required by ASC 815, Derivatives and Hedging.
(d) Effect of master netting agreements includes cash collateral received and paid of $925 million and $877 million , respectively, at Dec. 31, 2017 , and $1,119 million and $909 million , respectively, at Dec. 31, 2016 .

The following tables present the impact of derivative instruments used in fair value, cash flow and net investment hedging relationships in the income statement.

Impact of derivative instruments in the income statement
(in millions)

Derivatives in fair value hedging relationships	Location of gain or (loss) recognized in income on derivatives	Gain or (loss) recognized in income on derivatives Year ended Dec. 31, **2017**	2016	2015	Location of gain or (loss) recognized in income on hedged item	Gain or (loss) recognized in hedged item Year ended Dec. 31, **2017**	2016	2015
Interest rate contracts	Net interest revenue	**$ (115)**	$ (274)	$ (85)	Net interest revenue	**$ 93**	$ 270	$ 83

Derivatives in cash flow hedging relationships	Gain or (loss) recognized in accumulated OCI on derivatives (effective portion) Year ended Dec. 31, **2017**	2016	2015	Location of gain or (loss) reclassified from accumulated OCI into income (effective portion)	Gain or (loss) reclassified from accumulated OCI into income (effective portion) Year ended Dec. 31, **2017**	2016	2015	Location of gain or (loss) recognized in income on derivatives (ineffective portion and amount excluded from effectiveness testing)	Gain or (loss) recognized in income on derivatives (ineffectiveness portion and amount excluded from effectiveness testing) Year ended Dec. 31, **2017**	2016	2015
FX contracts	**$ —**	$ (18)	$ (1)	Net interest revenue	**$ —**	$ (18)	$ (1)	Net interest revenue	**$ —**	$ —	$ —
FX contracts	**2**	—	—	Other revenue	**2**	—	—	Other revenue	**6**	—	—
FX contracts	**1**	(16)	9	Trading revenue	**2**	(16)	9	Trading revenue	**—**		
FX contracts	**30**	(18)	(8)	Salary expense	**10**	(11)	(19)	Salary expense	**—**		
Total	**$ 33**	$ (52)	$ —		**$ 14**	$ (45)	$ (11)		**$ 6**	$ —	$ —

Derivatives in net investment hedging relationships	Gain or (loss) recognized in accumulated OCI on derivatives (effective portion) Year ended Dec. 31, **2017**	2016	2015	Location of gain or (loss) reclassified from accumulated OCI into income (effective portion)	Gain or (loss) reclassified from accumulated OCI into income (effective portion) Year ended Dec. 31, **2017**	2016	2015	Location of gain or (loss) recognized in income on derivatives (ineffective portion and amount excluded from effectiveness testing)	Gain or (loss) recognized in income on derivatives (ineffectiveness portion and amount excluded from effectiveness testing) Year ended Dec. 31, **2017**	2016	2015

FX contracts	**$ (625)**	$ 652	$ 474	Net interest revenue	**$ —**	$ —	$ 1	Other revenue	**$ —**	$ —	$ —

Trading activities (including trading derivatives)

We manage trading risk through a system of position limits, a VaR methodology based on historical simulation and other market sensitivity measures. Risk is monitored and reported to senior management by a separate unit, independent from trading, on a daily basis. Based on certain assumptions, the VaR methodology is designed to capture the potential overnight pre-tax dollar loss from adverse changes in fair values of all trading positions. The calculation assumes a one -day holding period, utilizes a 99% confidence level and incorporates non-linear product characteristics. The VaR model is one of several statistical models used to develop economic capital results, which are allocated to lines of business for computing risk-adjusted performance.

As the VaR methodology does not evaluate risk attributable to extraordinary financial, economic or other occurrences, the risk assessment process includes a number of stress scenarios based upon the risk factors in the portfolio and management's assessment of market conditions. Additional stress scenarios based upon historical market events are also performed. Stress tests may incorporate the impact of reduced market liquidity and the breakdown of historically observed correlations and extreme scenarios. VaR and other statistical measures, stress testing and sensitivity analysis are incorporated in other risk management materials.

The following table presents our foreign exchange and other trading revenue.

Foreign exchange and other trading revenue	Year ended Dec. 31,		
(in millions)	**2017**	2016	2015
Foreign exchange	**$ 638**	$ 687	$ 743
Other trading revenue	**30**	14	25
Total foreign exchange and other trading revenue	**$ 668**	$ 701	$ 768

Foreign exchange revenue includes income from purchasing and selling foreign currencies and currency forwards, futures and options. Other trading revenue reflects results from trading in cash instruments including fixed income and equity securities and non-foreign exchange derivatives.

Counterparty credit risk and collateral

We assess credit risk of our counterparties through regular examination of their financial statements, confidential communication with the management of those counterparties and regular monitoring of publicly available credit rating information. This and other information is used to develop proprietary credit rating metrics used to assess credit quality.

Collateral requirements are determined after a comprehensive review of the credit quality of each counterparty. Collateral is generally held or pledged in the form of cash or highly liquid government securities. Collateral requirements are monitored and adjusted daily.

Additional disclosures concerning derivative financial instruments are provided in Note 18 of the Notes to Consolidated Financial Statements.

Disclosure of contingent features in OTC derivative instruments

Certain OTC derivative contracts and/or collateral agreements of The Bank of New York Mellon, our largest banking subsidiary and the subsidiary through which BNY Mellon enters into the substantial majority of its OTC derivative contracts and/or collateral agreements, contain provisions that may require us to take certain actions if The Bank of New York Mellon's public debt rating fell to a certain level. Early termination provisions, or "closeout" agreements, in those contracts could trigger immediate payment of outstanding contracts that are in net liability positions. Certain collateral agreements would require The Bank of New York Mellon to immediately post additional collateral to cover some or all of The Bank of New York Mellon's liabilities to a counterparty.

The following table shows the fair value of contracts falling under early termination provisions that were in net liability positions as of Dec. 31, 2017 for three key ratings triggers.

If The Bank of New York Mellon's rating was changed to (Moody's/S&P)	Potential close-out exposures (fair value) *(a)*
A3/A-	$ 92 million
Baa2/BBB	$ 748 million
Ba1/BB+	$ 2,007 million

(a) The amounts represent potential total close-out values if The Bank of New York Mellon's rating were to immediately drop to the indicated levels.

The aggregated fair value of contracts impacting potential trade close-out amounts and collateral obligations can fluctuate from quarter to quarter due to changes in market conditions, changes in the composition of counterparty trades, new business or changes to the agreement definitions establishing close-out or collateral obligations.

If The Bank of New York Mellon's debt rating had fallen below investment grade on Dec. 31, 2017 , existing collateral arrangements would have required us to post an additional $102 million of collateral.

Offsetting assets and liabilities

The following tables present derivative instruments and financial instruments that are either subject to an enforceable netting agreement or offset by collateral arrangements. There were no derivative instruments or financial instruments subject to a legally enforceable netting agreement for which we are not currently netting.

Offsetting of derivative assets and financial assets at Dec. 31, 2017

(in millions)	Gross assets recognized	Gross amounts offset in the balance sheet		Net assets recognized on the balance sheet	Gross amounts not offset in the balance sheet: Financial instruments	Gross amounts not offset in the balance sheet: Cash collateral received	Net amount
Derivatives subject to netting arrangements:							
Interest rate contracts	**$ 5,915**	**$ 5,075**		**$ 840**	**$ 178**	**$ —**	**$ 662**
Foreign exchange contracts	**4,666**	**3,720**		**946**	**116**	**—**	**830**
Equity and other contracts	**67**	**50**		**17**	**—**	**—**	**17**
Total derivatives subject to netting arrangements	**10,648**	**8,845**		**1,803**	**294**	**—**	**1,509**
Total derivatives not subject to netting arrangements	**1,288**	**—**		**1,288**	**—**	**—**	**1,288**
Total derivatives	**11,936**	**8,845**		**3,091**	**294**	**—**	**2,797**
Reverse repurchase agreements	**42,784**	**25,848**	*(b)*	**16,936**	**16,923**	**—**	**13**
Securities borrowing	**11,199**	**—**		**11,199**	**10,858**	**—**	**341**
Total	**$ 65,919**	**$ 34,693**		**$ 31,226**	**$ 28,075**	**$ —**	**$ 3,151**

Offsetting of derivative assets and financial assets at Dec. 31, 2016

(in millions)	Gross assets recognized	Gross amounts offset in the balance sheet	*(a)*	Net assets recognized on the balance sheet	Gross amounts not offset in the balance sheet: Financial instruments	Gross amounts not offset in the balance sheet: Cash collateral received	Net amount
Derivatives subject to netting arrangements:							
Interest rate contracts	$ 7,205	$ 6,047		$ 1,158	$ 321	$ —	$ 837
Foreign exchange contracts	5,265	4,172		1,093	202	—	891
Equity and other contracts	44	38		6	—	—	6
Total derivatives subject to netting arrangements	12,514	10,257		2,257	523	—	1,734
Total derivatives not subject to netting arrangements	2,007	—		2,007	—	—	2,007
Total derivatives	14,521	10,257		4,264	523	—	3,741
Reverse repurchase agreements	17,588	481	*(b)*	17,107	17,104	—	3
Securities borrowing	8,694	—		8,694	8,425	—	269
Total	$ 40,803	$ 10,738		$ 30,065	$ 26,052	$ —	$ 4,013

(a) Includes the effect of netting agreements and net cash collateral received. The offset related to the OTC derivatives was allocated to the various types of derivatives based on the net positions.

(b) Offsetting of reverse repurchase agreements relates to our involvement in the Fixed Income Clearing Corporation, where we settle government securities transactions on a

net basis for payment and delivery through the Fedwire system.

Offsetting of derivative liabilities and financial liabilities at Dec. 31, 2017

(in millions)	Gross liabilities recognized	Gross amounts offset in the balance sheet	*(a)*	Net liabilities recognized on the balance sheet	Gross amounts not offset in the balance sheet: Financial instruments	Gross amounts not offset in the balance sheet: Cash collateral pledged	Net amount
Derivatives subject to netting arrangements:							
Interest rate contracts	**$ 6,810**	**$ 5,495**		**$ 1,315**	**$ 1,222**	**$ —**	**$ 93**
Foreign exchange contracts	**4,765**	**3,221**		**1,544**	**177**	**—**	**1,367**
Equity and other contracts	**143**	**81**		**62**	**58**	**—**	**4**
Total derivatives subject to netting arrangements	**11,718**	**8,797**		**2,921**	**1,457**	**—**	**1,464**
Total derivatives not subject to netting arrangements	**655**	**—**		**655**	**—**	**—**	**655**
Total derivatives	**12,373**	**8,797**		**3,576**	**1,457**	**—**	**2,119**
Repurchase agreements	**33,908**	**25,848**	*(b)*	**8,060**	**8,059**	**—**	**1**
Securities lending	**2,186**	**—**		**2,186**	**2,091**	**—**	**95**
Total	**$ 48,467**	**$ 34,645**		**$ 13,822**	**$ 11,607**	**$ —**	**$ 2,215**

Offsetting of derivative liabilities and financial liabilities at Dec. 31, 2016

(in millions)	Gross liabilities recognized	Gross amounts offset in the balance sheet	*(a)*	Net liabilities recognized on the balance sheet	Gross amounts not offset in the balance sheet: Financial instruments	Gross amounts not offset in the balance sheet: Cash collateral pledged	Net amount
Derivatives subject to netting arrangements:							
Interest rate contracts	$ 8,116	$ 6,634		$ 1,482	$ 1,266	$ —	$ 216
Foreign exchange contracts	4,957	3,363		1,594	355	—	1,239
Equity and other contracts	104	50		54	54		
Total derivatives subject to netting arrangements	13,177	10,047		3,130	1,675	—	1,455
Total derivatives not subject to netting arrangements	1,271	—		1,271	—	—	1,271
Total derivatives	14,448	10,047		4,401	1,675	—	2,726
Repurchase agreements	8,703	481	*(b)*	8,222	8,222		
Securities lending	1,615	—		1,615	1,522	—	93
Total	$ 24,766	$ 10,528		$ 14,238	$ 11,419	$ —	$ 2,819

(a) Includes the effect of netting agreements and net cash collateral paid. The offset related to the OTC derivatives was allocated to the various types of derivatives based on the net positions.

(b) Offsetting of repurchase agreements relates to our involvement in the Fixed Income Clearing Corporation, where we settle government securities transactions on a net basis for payment and delivery through the Fedwire system.

Secured borrowings

The following table presents the contract value of repurchase agreements and securities lending transactions accounted for as secured borrowings by the type of collateral provided to counterparties.

Repurchase agreements and securities lending transactions accounted for as secured borrowings

	Dec. 31, 2017				Dec. 31, 2016			
	Remaining contractual maturity				Remaining contractual maturity			
(in millions)	Overnight and continuous	Up to 30 days	30 days or more	Total	Overnight and continuous	Up to 30 days	30 days or more	Total
Repurchase agreements:								
U.S. Treasury	**$ 26,883**	**$ 11**	**$ —**	**$ 26,894**	$ 2,488	$ 4	$ —	$ 2,492
U.S. government agencies	**570**	**180**	**—**	**750**	396	10	—	406
Agency RMBS	**2,574**	**109**	**—**	**2,683**	3,294	386	—	3,680
Corporate bonds	**373**	**—**	**1,052**	**1,425**	304	—	694	998
Other debt securities	**253**	**—**	**731**	**984**	146	—	563	709
Equity securities	**655**	**—**	**517**	**1,172**	375	—	43	418
Total	**$ 31,308**	**$ 300**	**$ 2,300**	**$ 33,908**	$ 7,003	$ 400	$ 1,300	$ 8,703
Securities lending:								
U.S. government agencies	**$ 72**	**$ —**	**$ —**	**$ 72**	$ 39	$ —	$ —	$ 39
Other debt securities	**316**	**—**	**—**	**316**	477	—	—	477
Equity securities	**1,798**	**—**	**—**	**1,798**	1,099	—	—	1,099
Total	**$ 2,186**	**$ —**	**$ —**	**$ 2,186**	$ 1,615	$ —	$ —	$ 1,615
Total borrowings	**$ 33,494**	**$ 300**	**$ 2,300**	**$ 36,094**	$ 8,618	$ 400	$ 1,300	$ 10,318

BNY Mellon's repurchase agreements and securities lending transactions primarily encounter risk associated with liquidity. We are required to pledge collateral based on predetermined terms within the agreements. If we were to experience a decline in the fair value of the collateral pledged for these transactions, we could be required to provide additional collateral to the counterparty, therefore decreasing the amount of assets available for other liquidity needs that may arise. BNY Mellon also offers tri-party collateral agency services in the tri-party repo market where we are exposed to credit risk. In order to mitigate this risk, we require dealers to fully secure intraday credit.

Note 22 - Lines of business

We have an internal information system that produces performance data along product and service lines for our two principal businesses and the Other segment.

Business accounting principles

Our business data has been determined on an internal management basis of accounting, rather than the generally accepted accounting principles used for consolidated financial reporting. These measurement principles are designed so that reported results of the businesses will track their economic performance.

Business results are subject to reclassification when organizational changes are made. There were no significant organizational changes in 2017. The results are also subject to refinements in revenue and expense allocation methodologies, which are typically reflected on a prospective basis.

The accounting policies of the businesses are the same as those described in Note 1 of the Notes to Consolidated Financial Statements.

The primary types of revenue for our two principal businesses and the Other segment are presented below.

Business	Primary types of revenue
Investment Management	• Investment management and performance fees from: Mutual funds Institutional clients Private clients High-net-worth individuals and families, endowments and foundations and related entities • Distribution and servicing fees • Other revenue from seed capital investments
Investment Services	• Asset servicing fees, including custody fees, fund services, broker-dealer services, securities finance and collateral and liquidity services • Issuer services fees, including Depositary Receipts and Corporate Trust • Clearing services fees • Treasury services fees, including global payments, trade finance and cash management • Foreign exchange revenue • Financing-related fees and net interest revenue from credit-related activities
Other segment	• Net interest revenue and lease-related gains (losses) from leasing operations • Gain (loss) on securities and net interest revenue from corporate treasury activity • Other trading revenue from derivatives and other trading activity • Results of business exits

The results of our businesses are presented and analyzed on an internal management reporting basis.

- Revenue amounts reflect fee and other revenue generated by each business. Fee and other revenue transferred between businesses under revenue transfer agreements is included within other revenue in each business.
- Revenues and expenses associated with specific client bases are included in those businesses. For example, foreign exchange activity associated with clients using custody products is included in Investment Services.
- Net interest revenue is allocated to businesses based on the yields on the assets and liabilities generated by each business. We employ a funds transfer pricing system that matches funds with the specific assets and liabilities of each business based on their interest sensitivity and maturity characteristics.
- The provision for credit losses associated with the respective credit portfolios is reflected in each business segment.
- Incentives expense related to restricted stock is allocated to the businesses.
- Support and other indirect expenses are allocated to businesses based on internally developed methodologies.
- Recurring FDIC expense is allocated to the businesses based on average deposits generated within each business.
- Litigation expense is generally recorded in the business in which the charge occurs.
- Management of the investment securities portfolio is a shared service contained in the Other segment. As a result, gains and losses associated with the valuation of the securities portfolio are included in the Other segment.
- Client deposits serve as the primary funding source for our investment securities portfolio. We typically allocate all interest revenue to the businesses generating the deposits. Accordingly, accretion related to the portion of the investment securities portfolio restructured in 2009 has been included in the results of the businesses.
- M&I expense is a corporate level item and is recorded in the Other segment.
- Restructuring charges relate to corporate-level initiatives and were therefore recorded in the Other segment.
- Balance sheet assets and liabilities and their related income or expense are specifically assigned to each business. Businesses with a net liability position have been allocated assets.
- Goodwill and intangible assets are reflected within individual businesses.

Total revenue includes approximately $2.4 billion in 2017 , $2.2 billion in 2016 and $2.3 billion in 2015 of international operations domiciled in the UK which comprised 15% , 14% and 15% of total revenue, respectively.

The following consolidating schedules present the contribution of our businesses to our overall profitability.

For the year ended Dec. 31, 2017 *(dollar amounts in millions)*	**Investment Management**		**Investment Services**	**Other**	**Consolidated**	
Fee and other revenue	**$ 3,668**	*(a)*	**$ 8,527**	**$ 7**	**$ 12,202**	*(a)*
Net interest revenue (expense)	**329**		**3,058**	**(79)**	**3,308**	
Total revenue	**3,997**	*(a)*	**11,585**	**(72)**	**15,510**	*(a)*
Provision for credit losses	**2**		**(7)**	**(19)**	**(24)**	
Noninterest expense	**2,854**		**7,747**	**347**	**10,948**	*(b)*
Income before taxes	**$ 1,141**	*(a)*	**$ 3,845**	**$ (400)**	**$ 4,586**	*(a)(b)*
Pre-tax operating margin *(c)*	**29%**		**33%**	**N/M**	**30%**	
Average assets	**$ 31,450**		**$ 254,646**	**$ 57,752**	**$ 343,848**	

(a) Both total fee and other revenue and total revenue include net income from consolidated investment management funds of $37 million , representing $70 million of income and noncontrolling interests of $33 million . Income before taxes is net of noncontrolling interests of $33 million .
(b) Noninterest expense includes a loss attributable to noncontrolling interest of $9 million related to other consolidated subsidiaries.
(c) Income before taxes divided by total revenue.

For the year ended Dec. 31, 2016 *(dollar amounts in millions)*	Investment Management		Investment Services	Other	Consolidated	
Fee and other revenue	$ 3,424	*(a)*	$ 8,299	$ 366	$ 12,089	*(a)*
Net interest revenue	327		2,797	14	3,138	
Total revenue	3,751	*(a)*	11,096	380	15,227	*(a)*
Provision for credit losses	6		8	(25)	(11)	
Noninterest expense	2,778		7,342	394	10,514	*(b)*
Income before taxes	$ 967	*(a)*	$ 3,746	$ 11	$ 4,724	*(a)(b)*
Pre-tax operating margin *(c)*	26%		34%	N/M	31%	
Average assets	$ 30,169		$ 273,808	$ 54,500	$ 358,477	

(a) Both total fee and other revenue and total revenue include net income from consolidated investment management funds of $16 million , representing $26 million of income and noncontrolling interests of $10 million . Income before taxes is net of noncontrolling interests of $10 million .
(b) Noninterest expense includes a loss attributable to noncontrolling interest of $9 million related to other consolidated subsidiaries.
(c) Income before taxes divided by total revenue.

For the year ended Dec. 31, 2015 *(dollar amounts in millions)*	Investment Management		Investment Services	Other	Consolidated	
Fee and other revenue	$ 3,587	*(a)*	$ 8,177	$ 336	$ 12,100	*(a)*
Net interest revenue	319		2,622	85	3,026	
Total revenue	3,906	*(a)*	10,799	421	15,126	*(a)*
Provision for credit losses	(1)		28	133	160	
Noninterest expense	2,859		7,502	434	10,795	*(b)*
Income before taxes	$ 1,048	*(a)*	$ 3,269	$ (146)	$ 4,171	*(a)(b)*
Pre-tax operating margin *(c)*	27%		30%	N/M	28%	
Average assets	$ 30,928		$ 286,617	$ 54,642	$ 372,187	

(a) Both total fee and other revenue and total revenue include net income from consolidated investment management funds of $18 million , representing $86 million of income and noncontrolling interests of $68 million . Income before taxes is net of noncontrolling interests of $68 million .
(b) Noninterest expense includes a loss attributable to noncontrolling interest of $4 million related to other consolidated subsidiaries.
(c) Income before taxes divided by total revenue.

Note 23 - International operations

International activity includes Investment Management and Investment Services fee revenue generating businesses, foreign exchange trading activity, loans and other revenue producing assets and transactions in which the customer is domiciled outside of the United States and/or the international activity is resident at an international entity. Due to the nature of our international and domestic activities, it is not possible to precisely distinguish our international operations between internationally and domestically domiciled customers. As a result, it is necessary to make certain subjective assumptions such as:

- Income from international operations is determined after internal allocations for interest revenue, taxes, expenses and provision for credit losses.
- Expense charges to international operations include those directly incurred in connection with such activities, as well as an allocable share of general support and overhead charges.

Total assets, total revenue, income before income taxes and net income of our international operations are shown in the table below.

International operations *(in millions)*	International			Total		
	EMEA	APAC	Other	Total International	Total Domestic	Total
2017						
Total assets at period end *(a)*	**$ 88,490** *(b)*	**$ 20,676**	**$ 1,737**	**$ 110,903**	**$ 260,855**	**$ 371,758**
Total revenue	**3,982** *(b)*	**997**	**610**	**5,589**	**9,954**	**15,543**
Income before income taxes	**1,497**	**538**	**296**	**2,331**	**2,279**	**4,610**
Net income	**1,186**	**426**	**234**	**1,846**	**2,268**	**4,114**
2016						
Total assets at period end *(a)*	$ 73,303 *(b)*	$ 18,074	$ 1,350	$ 92,727	$ 240,742	$ 333,469
Total revenue	3,744 *(b)*	922	549	5,215	10,022	15,237
Income before income taxes	1,263	485	286	2,034	2,691	4,725
Net income	1,013	389	229	1,631	1,917	3,548
2015						
Total assets at period end *(a)*	$ 76,679 *(b)*	$ 17,829	$ 1,176	$ 95,684	$ 298,096	$ 393,780
Total revenue	3,932 *(b)*	904	577	5,413	9,781	15,194
Income before income taxes	1,436	451	269	2,156	2,079	4,235
Net income	1,163	365	218	1,746	1,476	3,222

(a) *Total assets include long-lived assets, which are not considered by management to be significant in relation to total assets. Long-lived assets are primarily located in the United States.*
(b) *Includes revenue of approximately $2.4 billion , $2.2 billion and $2.3 billion and assets of approximately $32.9 billion , $29.6 billion and $33.2 billion in 2017, 2016 and 2015, respectively, of international operations domiciled in the UK, which is 15% , 14% and 15% of total revenue and 9% , 9% and 8% of total assets, respectively.*

Note 24 - Supplemental information to the Consolidated Statement of Cash Flows

Non-cash investing and financing transactions that, appropriately, are not reflected in the Consolidated Statement of Cash Flows are listed below.

Non-cash investing and financing transactions *(in millions)*	Year ended Dec. 31, **2017**	2016	2015
Transfers from loans to other assets for other real estate owned ("OREO")	**$ 3**	$ 4	$ 7
Change in assets of consolidated VIEs	**500**	170	7,881
Change in liabilities of consolidated VIEs	**313**	69	7,423
Change in nonredeemable noncontrolling interests of consolidated investment management funds	**302**	120	295
Securities purchased not settled	**112**	75	
Securities sales not settled	**587**	—	11
Securities matured not settled	**70**	—	—
Available-for-sale securities transferred to held-to-maturity	**—**	—	11,602
Held-to-maturity securities transferred to available-for-sale	**74**	10	
Premises and equipment/capitalized software funded by capital lease obligations	**347**	13	49

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
The Bank of New York Mellon Corporation:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of The Bank of New York Mellon Corporation and subsidiaries (BNY Mellon) as of December 31, 2017 and 2016, the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2017, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of BNY Mellon as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), BNY Mellon's internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control* **-** *Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 28, 2018 expressed an unqualified opinion on the effectiveness of BNY Mellon's internal control over financial reporting.

Basis of Opinion

These consolidated financial statements are the responsibility of BNY Mellon's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to BNY Mellon in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ KPMG LLP

We have served as BNY Mellon's auditor since 2007.

New York, New York
February 28, 2018

Directors, Executive Committee and Other Executive Officers

Effective February 28, 2018

Directors

Linda Z. Cook
Managing Director and Member of the Executive Committee of EIG Global Energy Partners, an investment firm, and Chief Executive Officer of Harbour Energy, Ltd., an energy investment vehicle

Joseph J. Echevarria
Retired Chief Executive Officer
Deloitte LLP
Global provider of audit, consulting, financial advisory, risk management, tax and related services

Edward P. Garden
Chief Investment Officer and a founding partner, Trian Fund Management, L.P.
Alternative investment management firm

Jeffrey A. Goldstein
Chief Executive Officer, SpringHarbor Financial Group LLC and a Senior Advisor, Hellman & Friedman LLC
Private equity firm

John M. Hinshaw
Former Executive Vice President and Chief Customer Officer at Hewlett Packard Enterprise Company
Global provider of IT, technology and enterprise products and solutions

Edmund F. (Ted) Kelly
Retired Chairman
Liberty Mutual Group
Multi-line insurance company

John A. Luke, Jr.
Non-Executive Chairman
WestRock Company
Global paper and packaging company

Jennifer B. Morgan
Executive Board Member of SAP and President of SAP Americas and Asia Pacific Japan, Global Customer Operations
Global software company

Mark A. Nordenberg
Chancellor Emeritus,
Chair of the Institute of Politics and Distinguished Service Professor of Law
University of Pittsburgh
Major public research university

Elizabeth E. Robinson
Former Global Treasurer, Partner and Managing Director of The Goldman Sachs Group, Inc.
Global financial services company

Charles W. Scharf
Chairman and Chief Executive Officer
The Bank of New York Mellon Corporation

Samuel C. Scott III
Retired Chairman, President and Chief Executive Officer
Ingredion Incorporated (formerly Corn Products International, Inc.)
Global ingredient solutions provider

Executive Committee and Other Executive Officers

J. David Cruikshank
Chairman, Asia Pacific

Lisa Dolly
Chief Executive Officer, Pershing LLC

Bridget E. Engle *
Chief Information Officer

Thomas P. (Todd) Gibbons *
Chief Executive Officer, Clearing, Markets and Client Management

Hani A. Kablawi *
Chief Executive Officer, Global Asset Servicing and Chairman, Europe, Middle East and Africa

Kurtis R. Kurimsky *
Corporate Controller

Francis (Frank) La Salla *
Chief Executive Officer, Issuer Services

J. Kevin McCarthy *
General Counsel

Brian Ruane
Chief Executive Officer, Government Securities Services Corp.

Michael P. Santomassimo *
Chief Financial Officer

Charles W. Scharf *
Chairman and Chief Executive Officer

Douglas H. Shulman *
Head of Client Service Delivery

Mitchell E. Harris *
Chief Executive Officer, Investment Management

Michelle M. Neal
Chief Executive Officer, BNY Mellon Markets

James S. Wiener *
Chief Risk Officer

Monique R. Herena *
Chief Human Resources Officer

* Designated as an Executive Officer.

Performance Graph

Cumulative shareholder returns *(a)*	Dec. 31,					
(in dollars)	2012	2013	2014	2015	2016	**2017**
The Bank of New York Mellon Corporation	$ 100.0	$ 138.7	$ 164.0	$ 169.4	$ 198.3	**$ 229.4**
S&P 500 Financial Index	100.0	135.6	156.3	153.9	188.9	**230.9**
S&P 500 Index	100.0	132.4	150.5	152.6	170.8	**208.1**
Peer Group	100.0	142.6	164.6	164.3	198.7	**240.7**

(a) Returns are weighted by market capitalization at the beginning of the measurement period.

This graph shows The Bank of New York Mellon Corporation's cumulative total shareholder returns over the five-year period from Dec. 31, 2012 to Dec. 31, 2017. Our peer group is composed of financial services companies which provide investment management and investment servicing. We also utilize the S&P 500 Financial Index as a benchmark against our performance. The graph shows the cumulative total returns for the same five-year period of the S&P 500 Financial Index, the S&P 500 Index as well as our peer group listed below. The comparison assumes a $100 investment on Dec. 31, 2012 in The Bank of New York Mellon Corporation common stock, in the S&P 500 Financial Index, in the S&P 500 Index and in the peer group detailed below and assumes that all dividends were reinvested.

Peer Group		
BlackRock, Inc.	Morgan Stanley	State Street Corporation
The Charles Schwab Corporation	Northern Trust Corporation	U.S. Bancorp
Franklin Resources, Inc.	The PNC Financial Services Group, Inc.	Wells Fargo & Company
JPMorgan Chase & Co.	Prudential Financial, Inc.	

Exhibit 21.1

THE BANK OF NEW YORK MELLON CORPORATION
PRIMARY SUBSIDIARIES
DEC. 31, 2017

The following are primary subsidiaries of The Bank of New York Mellon Corporation as of Dec. 31, 2017 and the states or jurisdictions in which they are organized. The names of particular subsidiaries have been omitted because, considered in the aggregate as a single subsidiary, they would not constitute, as of Dec. 31, 2017, a “significant subsidiary” as that term is defined in Rule 1-02(w) of Regulation S-X under the Securities Exchange Act of 1934, as amended.

- BNY Capital Funding LLC – State of Organization: Delaware
- BNY Capital Markets Holdings, Inc. – State of Incorporation: New York
- BNY Capital Resources Corporation – State of Incorporation: New York
- BNY International Financing Corporation – Incorporation: United States
- BNY Markets Limited – Incorporation: England
- BNY Mellon IHC, LLC - State or Organization: Delaware
- BNY Mellon Capital Markets, LLC – State of Organization: Delaware
- BNY Mellon Fund Managers Limited – Incorporation: England
- BNY Mellon Global Management Limited – Incorporation: Ireland
- BNY Mellon Asset Management Japan Limited – Incorporation: Japan
- BNY Mellon International Asset Management Group Limited – Incorporation: England
- BNY Mellon International Asset Management (Holdings) Limited – Incorporation: England and Wales
- BNY Mellon International Asset Management (Holdings) No. 1 Limited – Incorporation: England and Wales
- BNY Mellon Investment Management (APAC) Holdings Limited – Incorporation: England
- BNY Mellon Investment Management APAC LP – Incorporation: England and Wales
- BNY Mellon Investment Management Cayman Ltd. – Incorporation: Cayman Islands
- BNY Mellon Investment Management EMEA Limited – Incorporation: England
- BNY Mellon Investment Management Europe Holdings Limited – Incorporation: England
- BNY Mellon Investment Management (Europe) Limited – Incorporation: England
- BNY Mellon Investment Management (Jersey) Limited – Incorporation: Jersey
- BNY Mellon Investment Management Holdings LLC – State or Organization: Delaware
- BNY Mellon Investment Servicing (US) Inc. – State of Incorporation: Massachusetts
- BNY Mellon, National Association – Incorporation: United States
- BNY Mellon Securities Services (Ireland) Limited – Incorporation: Ireland
- BNY Mellon Trust Company (Ireland) Limited – Incorporation: Ireland
- BNY Mellon US Services Holdings LLC – State of Organization: Delaware
- Insight Investment Management (Global) Limited – Incorporation: England
- Insight Investment Management (Ireland) Limited – Incorporation: Ireland
- Insight Investment Management Limited – Incorporation: England
- MBC Investments Corporation – State of Incorporation: Delaware
- Mellon Canada Holding Company – Incorporation: Canada
- Mellon Overseas Investment Corporation – Incorporation: United States
- PAS Holdings LLC – State of Organization: Delaware
- Pershing Advisor Solutions LLC – State of Organization: Delaware
- Pershing Group LLC – State of Organization: Delaware
- Pershing Holdings (UK) Limited – Incorporation: England
- Pershing Limited – Incorporation: England
- Pershing LLC – State of Organization: Delaware
- Pershing Securities Limited – Incorporation: England
- The Bank of New York Mellon – State of Organization: New York
- The Bank of New York Mellon (International) Limited – Incorporation: England
- The Bank of New York Mellon SA/NV – Incorporation: Belgium
- The Dreyfus Corporation – State of Incorporation: New York
- Walter Scott & Partners Limited – Incorporation: Scotland

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors
The Bank of New York Mellon Corporation:

We consent to the incorporation by reference in the following registration statements, as amended:

Form	Registration Statement	Filer
S-8	333-198152	The Bank of New York Mellon Corporation
S-8	333-174342	The Bank of New York Mellon Corporation
S-8	333-171258	The Bank of New York Mellon Corporation
S-8	333-150324	The Bank of New York Mellon Corporation
S-8	333-150323	The Bank of New York Mellon Corporation
S-8	333-149473	The Bank of New York Mellon Corporation
S-8	333-144216	The Bank of New York Mellon Corporation
S-3	333-209450	The Bank of New York Mellon Corporation
S-3	333-211248	The Bank of New York Mellon Corporation

of our reports dated February 28, 2018 , with respect to the consolidated balance sheets of The Bank of New York Mellon Corporation and subsidiaries (BNY Mellon) as of December 31, 2017 and 2016 , the related consolidated statements of income, comprehensive income, changes in equity, and cash flows for each of the years in the three-year period ended December 31, 2017 , and the related notes (collectively, the consolidated financial statements), and the effectiveness of internal control over financial reporting as of December 31, 2017 , which reports appear in the December 31, 2017 Annual Report on Form 10-K of BNY Mellon.

/s/ KPMG LLP

New York, New York
February 28, 2018

Exhibit 24.1

POWER OF ATTORNEY

THE BANK OF NEW YORK MELLON CORPORATION

Know all men by these presents, that each person whose signature appears below constitutes and appoints J. Kevin McCarthy and Craig T. Beazer, and each of them, such person’s true and lawful attorney-in-fact and agent, with full power of substitution and revocation, for such person and in such person’s name, place and stead, in any and all capacities, to sign one or more Annual Reports on Form 10-K pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, for The Bank of New York Mellon Corporation (the "Corporation") for the year ended December 31, 2017, and any and all amendments thereto, and to file the same with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission and with the New York Stock Exchange, Inc., granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents and each of them, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

This power of attorney shall be effective as of February 13, 2018 and shall continue in full force and effect until revoked by the undersigned in a writing filed with the secretary of the Corporation.

/s/ Linda Z. Cook
Linda Z. Cook, Director

/s/ Joseph J. Echevarria
Joseph J. Echevarria, Director

/s/ Edward P. Garden
Edward P. Garden, Director

/s/ Jeffrey A. Goldstein
Jeffrey A. Goldstein, Director

/s/ John M. Hinshaw
John M. Hinshaw, Director

/s/ Edmund F. Kelly
Edmund F. Kelly, Director

/s/ John A. Luke, Jr.
John A. Luke, Jr., Director

/s/ Jennifer B. Morgan
Jennifer B. Morgan, Director

/s/ Mark A. Nordenberg
Mark A. Nordenberg, Director

/s/ Elizabeth E. Robinson
Elizabeth E. Robinson, Director

/s/ Samuel C. Scott III
Samuel C. Scott III, Director

Exhibit 31.1

CERTIFICATION

I, Charles W. Scharf, certify that:

1. I have reviewed this annual report on Form 10-K of The Bank of New York Mellon Corporation (the “registrant”);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: February 28, 2018

/s/ Charles W. Scharf

Name: Charles W. Scharf
Title: Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Michael P. Santomassimo, certify that:

1. I have reviewed this annual report on Form 10-K of The Bank of New York Mellon Corporation (the “registrant”);

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and

5. The registrant’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: February 28, 2018

/s/ Michael P. Santomassimo

Name: Michael P. Santomassimo

Title: Chief Financial Officer

Exhibit 32.1

CERTIFICATION

Pursuant to 18 U.S.C. Section 1350, the undersigned officer of The Bank of New York Mellon Corporation (“BNY Mellon”), hereby certifies, to his knowledge, that BNY Mellon’s Annual Report on Form 10-K for the year ended Dec. 31, 2017 (the “Report”) fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of BNY Mellon.

Dated: February 28, 2018

/s/ Charles W. Scharf
Name: Charles W. Scharf
Title: Chief Executive Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.

Exhibit 32.2

CERTIFICATION

Pursuant to 18 U.S.C. Section 1350, the undersigned officer of The Bank of New York Mellon Corporation ("BNY Mellon"), hereby certifies, to his knowledge, that BNY Mellon's Annual Report on Form 10-K for the year ended Dec. 31, 2017 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of BNY Mellon.

Dated: February 28, 2018

/s/ Michael P. Santomassimo

Name: Michael P. Santomassimo

Title: Chief Financial Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.

EXHIBIT V
DEFINITIVE PROXY STATEMENT SCHEDULE 14A
FILED BY THE BANK OF NEW YORK MELLON CORPORATION ON MARCH 10, 2017

2017

Notice of Annual Meeting and Proxy Statement

BNY MELLON | Invested

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BNY MELLON

March 10, 2017

Dear Fellow Stockholder:

On behalf of the Board of Directors, we cordially invite you to our 2017 Annual Meeting of Stockholders to be held on Tuesday, April 11, 2017 at 9 a.m., Eastern time, at 101 Barclay Street, New York, New York 10286.

At this year's Annual Meeting, you will be asked to vote on several items, including the election of directors, our 2016 executive compensation program (the "say-on-pay vote"), the frequency with which we should conduct a say-on-pay vote and a stockholder proposal, if properly presented. Detailed information about the director nominees, including their specific experience and qualifications, begins on page 7. Our Compensation Discussion and Analysis, which explains our continued commitment to pay for performance, alignment with stockholders' interests and appropriate risk-taking in the context of our 2016 incentive compensation decisions, begins on page 35. A summary of why we are seeking stockholder input on say-on-pay vote frequency is on page 72. We appreciate the opportunity to provide you with these details of your Board's actions in 2016 and recommendations for 2017. We encourage you to read the proxy statement carefully for more information.

Your vote is important to us, and we hope that you will participate in the Annual Meeting, either by attending and voting in person or by voting as promptly as possible through any of the acceptable means described in this proxy statement. Instructions on how to vote begin on page 82. You may also listen to the meeting at https://www.bnymellon.com/us/en/investor-relations/index.jsp.

Thank you for your continued support of BNY Mellon, and we look forward to seeing you at the Annual Meeting.

Sincerely,

Gerald L Hassell

Gerald L. Hassell
Chairman and CEO

NOTICE OF ANNUAL MEETING

TUESDAY, APRIL 11, 2017

9:00 a.m., Eastern time
101 Barclay Street, New York, New York 10286
Record Date: February 10, 2017

	AGENDA	BOARD RECOMMENDATION
1.	To elect the 13 nominees named in this proxy statement to serve on our Board of Directors until the 2018 annual meeting	**FOR** each director nominee
2.	To provide an advisory vote for approval of the 2016 compensation of our named executives, as disclosed in this proxy statement	**FOR**
3.	To provide an advisory vote recommending the frequency with which we conduct a say-on-pay vote	**FOR** a vote **EVERY** year
4.	To ratify the appointment of KPMG LLP as our independent auditor for 2017	**FOR**
5.	To consider a stockholder proposal regarding a proxy voting review report, if properly presented	**AGAINST**

We will also act on any other business that is properly raised.

March 10, 2017

By Order of the Board of Directors,

Craig T. Beazer
Corporate Secretary

IT IS IMPORTANT THAT YOU CAREFULLY READ YOUR PROXY STATEMENT AND VOTE.

VIA THE INTERNET Visit the website listed on your proxy card	BY TELEPHONE Call the telephone number listed on your proxy card	IN PERSON Attend the annual meeting (see page 82 for more information)	BY MAIL Mail in a completed proxy card

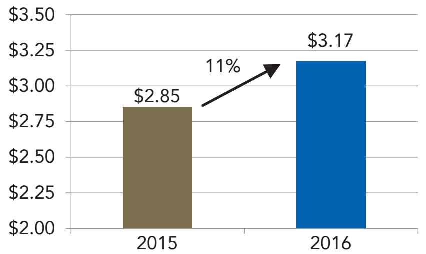
Important Notice Regarding the Availability of Proxy Materials for the Stockholder Meeting to be held on April 11, 2017: Our 2017 proxy statement and 2016 Annual Report to stockholders are available at www.envisionreports.com/bk.

INTRODUCTION

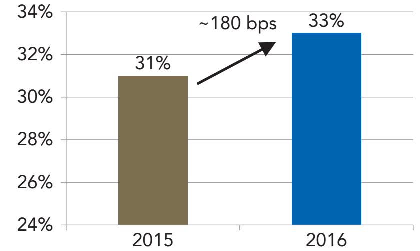
The following information is presented to provide context for the operation of our pay program which is discussed in more detail on page 6 of this introduction and throughout our Compensation Discussion and Analysis beginning on page 35 of this proxy statement.

2016 Performance Highlights

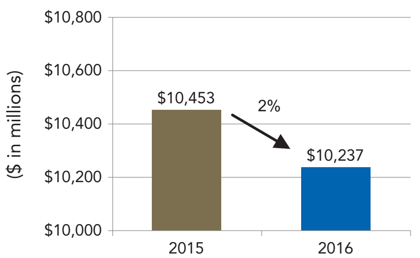
Operating EPS*



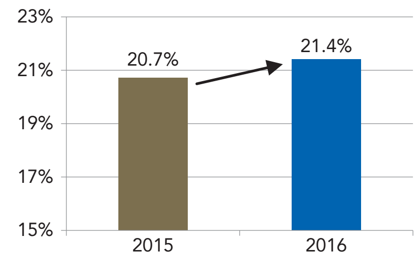
Adjusted Pre-Tax Operating Margin*



Adjusted Noninterest Expense*



Adjusted Return on Tangible Common Equity*



Progressing Towards Achieving Our Three-Year Financial Goals

▲ **15%****
2-year operating EPS*

▲ **2%****
2-year adjusted revenue*

▲ **21%****
2-year adjusted return on tangible common equity*

Adjusted pre-tax operating margin up 449 basis points to 33%*

Awards and Recognition

Investment Services

Tri-Party Agent of the Year
Global Investor/ISF, 2016

Custodian of the Year and Most Innovative Project of the Year
Risk.net, 2016

Best Global Corporate Trust Service Provider
Global Finance, 2016

Treasury Services

Best Treasury and Cash Management Providers
Global Finance, 2016

Markets

Best Foreign Exchange Providers
Global Finance, 2016

Investment Management

Top U.S. Private Bank
Family Wealth Report, 2016

Equity Manager of the Year — Newton Investment Management
UK Pensions, 2016

LDI Manager of the Year — Insight Investment
Financial News, 2016

Fixed Income Manager of the Year — Insight Investment
Financial News, 2016

Corporate Social Responsibility

Dow Jones Sustainability World Index
2016

Technology

Digital Edge 25 Award
2016

Top Companies for Women Technologists Leadership Index
Anita Borg Institute, 2016

Workplace

Best Places to Interview
Glassdoor, 2016

Financial Services Gender-Equality Index
Bloomberg, 2016

100% Corporate Equality Index
Human Rights Campaign, 2017

* Operating EPS, adjusted pre-tax operating margin, adjusted noninterest expense, adjusted return on tangible common equity and adjusted revenue are non-GAAP measures. For a reconciliation and explanation of these non-GAAP measures, see Annex A. On a comparable GAAP basis, for 2015 and 2016 respectively, EPS was $2.71 and $3.15, pre-tax operating margin was 28% and 31%, noninterest expense (in millions) was $10,799 and $10,523, return on equity was 8.6% and 9.6% and revenue (in millions) was $15,194 and $15,237.

** Values reflect cumulative 2015-2016 performance. On a comparable GAAP basis, EPS increased 21%, revenue decreased 1%, return on equity increased 280 basis points and pre-tax operating margin increased 830 basis points.

DIRECTOR NOMINEES

Our directors contribute to the strength of our Board through the variety of their experience, diversity, differing perspectives and institutional knowledge.

COMMITTEE MEMBERSHIPS

Name[1]	Occupation	Independent	Audit	Corp. Gov. & Nom.	Corp. Social Resp.	Finance	Human Res. & Comp.	Risk	Technology	Other Current Public Company Board Service
Linda Z. Cook Age 58, Director since 2016	Managing Director of EIG Global Energy Partners and CEO of Harbour Energy, Ltd.	•		•				•		0
Nicholas M. Donofrio Age 71, Director since 1999	Retired EVP, Innovation & Technology of IBM Corporation	•		•	•			•	C	2
Joseph J. Echevarria Age 60, Director since 2015	Retired CEO of Deloitte LLP	•[2]	C		•	•				3
Edward P. Garden Age 55, Director since 2014	Chief Investment Officer and a founding partner of Trian Fund Management, L.P.	•		•		•	C	•		1
Jeffrey A. Goldstein Age 61, Director since 2014	Senior Advisor, Hellman & Friedman LLC	•				C	•	•		1
Gerald L. Hassell Age 65, Director since 1998	Chairman & CEO of The Bank of New York Mellon Corporation									1
John M. Hinshaw Age 46, Director since 2014	Former EVP and Chief Customer Officer of Hewlett Packard Enterprise Company	•						•	•	0
Edmund F. "Ted" Kelly Age 71, Director since 2004	Retired Chairman of Liberty Mutual Group	•					•	C		1
John A. Luke, Jr. Age 68, Director since 1996	Non-Executive Chairman of WestRock Company	•	•	•						3
Jennifer B. Morgan Age 45, Director since 2016	President of SAP North America	•	•						•	0
Mark A. Nordenberg Age 68, Director since 1998	Chancellor Emeritus, Chair of the Institute of Politics and Distinguished Service Professor of Law of the University of Pittsburgh	•	•	C	•				•	0
Elizabeth E. Robinson Age 48, Director since 2016	Retired Global Treasurer of The Goldman Sachs Group, Inc.	•				•		•		0
Samuel C. Scott III Age 72, Director since 2003	Retired Chairman, President & CEO of Ingredion Incorporated	•	•		C		•			2

(1) Catherine A. Rein, a member of our Audit and Corporate Governance and Nominating Committees, is retiring as a director of our company immediately after our Annual Meeting.

(2) Lead Director.

COMMITTEES

Audit

Chair: Joseph J. Echevarria

Members: John A. Luke, Jr., Jennifer B. Morgan, Mark A. Nordenberg, Catherine A. Rein, Samuel C. Scott III

2016 Meetings: 13

Key Responsibilities: Overseeing our registered independent public accountants, internal audit function, and internal controls over financial statements and reports.

Corporate Governance and Nominating

Chair: Mark A. Nordenberg

Members: Linda Z. Cook, Nicholas M. Donofrio, Edward P. Garden, John A. Luke, Jr., Catherine A. Rein

2016 Meetings: 9

Key Responsibilities: Identifying and reviewing potential directors, and reviewing non-employee director compensation; maintaining our Corporate Governance Guidelines; overseeing annual Board and committee evaluations; and reviewing structure, responsibilities and membership of committees.

Corporate Social Responsibility

Chair: Samuel C. Scott III

Members: Nicholas M. Donofrio, Joseph J. Echevarria, Mark A. Nordenberg

2016 Meetings: 3

Key Responsibilities: Promoting culture of exemplary corporate citizenship; overseeing our philanthropy, community involvement, and advocacy; assessing the impact of our businesses, operations and programs from a social responsibility perspective reflecting varied stakeholders' interests; and overseeing Community Reinvestment Act and Fair Lending compliance.

Finance

Chair: Jeffrey A. Goldstein

Members: Joseph J. Echevarria, Edward P. Garden, Elizabeth E. Robinson

2016 Meetings: 6

Key Responsibilities: Monitoring and overseeing our financial resources and strategies; and reviewing forecasts and budgets, net interest revenue plans, investment portfolio activities, capital structure, capital raising and capital distribution initiatives that exceed our Corporate Governance Guidelines thresholds.

Human Resources and Compensation

Chair: Edward P. Garden

Members: Jeffrey A. Goldstein, Edmund F. "Ted" Kelly, Samuel C. Scott III

2016 Meetings: 6

Key Responsibilities: Overseeing employee compensation and benefits, management development and succession and diversity and inclusion programs; and administering our incentive compensation plans, including equity incentive compensation plans.

Risk

Chair: Edmund F. "Ted" Kelly

Members: Linda Z. Cook, Nicholas M. Donofrio, Edward P. Garden, Jeffrey A Goldstein, John M. Hinshaw, Elizabeth E. Robinson

2016 Meetings: 5

Key Responsibilities: Approving enterprise-wide risk management practices, our risk appetite statement and our global risk management framework; evaluating risk exposure and tolerance; and reviewing policies and practices regarding risk assessment and risk management.

Technology

Chair: Nicholas M. Donofrio

Members: John M. Hinshaw, Jennifer B. Morgan, Mark A. Nordenberg

2016 Meetings: 8

Key Responsibilities: Approving our technology planning and strategy; reviewing significant technology investments; and monitoring technology trends relative to our business strategy.

GOVERNANCE AND COMPENSATION

Robust Stockholder Rights	Active, Independent Board	Our Culture
• **No staggered board** • **Special meeting rights** for stockholders, individually or in a group, holding 20% of our outstanding common stock • **Proxy access** allowing stockholders, individually or in a group of up to 20, holding 3% of our outstanding stock for at least 3 years to nominate up to 20% of the Board • **No plurality voting** in uncontested director elections (each director must be elected by majority of votes cast) • **No supermajority voting:** stockholder actions require only majority of votes cast (not majority of shares present and entitled to vote) • **No "poison pill" (stockholders' rights plan)**	• **Continued, active engagement with our stakeholders** • **Independent board:** our Board is comprised solely of independent directors other than our CEO and meets in regular executive sessions • **Independent Lead Director:** selected by our independent directors and empowered with broad authority • **Board succession and refreshment:** our Board, led by the Corporate Governance and Nominating Committee recruiting efforts, added three new independent directors in 2016 • **Lead Director and Committee Chairman rotation:** our Lead Director and committee chairmen are required to rotate at five-year intervals • **High rate of attendance:** average 2016 attendance at Board and committee meetings was 93% • A substantial portion of director compensation is paid in **equity that is retained until retirement**	• **Risk-aware:** we protect against excessive risk-taking through multiple lines of defense, including Board oversight • **Honest and accountable:** our codes of conduct apply to all employees and directors to provide a framework for ethical conduct • **Innovative and evolving:** we encourage directors to participate in continuing education programs, and have continued to enhance our integrated learning and development platform for employees through BNY Mellon University ("BKU")

Awarded 2016 Total Direct Compensation[1]

Named Executives[2] (NEOs)	Salary	Incentive Compensation			Total Incentive as % of Target	Awarded Total Direct Compensation[1]
		Cash	RSUs[3]	PSUs[3]		
Gerald L. Hassell *Chairman & CEO*	$1,000,000	$4,326,000	$4,326,000	$8,652,000	124%	$18,304,000
Thomas P. ("Todd") Gibbons *Vice Chairman & CFO*	$650,000	$2,354,580	$1,962,150	$3,531,870	124%	$8,498,600
Brian T. Shea *Vice Chairman & CEO of Investment Services*	$650,000	$2,388,870	$1,990,725	$3,583,305	125%	$8,612,900
Karen B. Peetz *President*	$650,000	$1,353,938	$3,159,187	$0[4]	104%	$5,163,125
Mitchell E. Harris *CEO of Investment Management*	$650,000	$1,736,438	$1,447,031	$2,604,656	79%	$6,438,125

1 The amounts reported as Awarded Total Direct Compensation differ substantially from the amounts determined under SEC rules as reported for 2016 in the "Total" column of the Summary Compensation Table set forth on page 60. The above table is not a substitute for the Summary Compensation Table.
2 Our NEOs for 2016 also include Curtis Y. Arledge, former Vice Chairman and CEO of Investment Management. Mr. Arledge's employment with the company terminated effective March 23, 2016.
3 Restricted stock units ("RSUs") vest in equal installments over three years. Performance-based restricted stock units ("PSUs") are earned between 0 – 150% based on the achievement of performance metrics over the 2017 – 2019 performance period.
4 Ms. Peetz's incentive award was paid in cash and RSUs in light of her retirement on December 31, 2016.

Item 1. Election of Directors

Proposal

We are asking stockholders to elect the 13 nominees named in this proxy statement to serve on the Board of Directors of The Bank of New York Mellon Corporation (the "company," "BNY Mellon," "we" or "us") until the 2018 Annual Meeting of stockholders or until their successors have been duly elected and qualified.

Background

- Each nominee currently serves on our Board of Directors.
- 12 nominees are currently independent directors and one nominee serves as the company's Chairman and Chief Executive Officer.
- Catherine A. Rein, currently a director of our company, will not be standing for reelection at our Annual Meeting.
- The Board and the Corporate Governance and Nominating Committee ("CG&N Committee") have concluded that each of our nominees should be recommended for re-nomination as a director as described on page 16 after considering, among other things, the nominee's (1) professional background and experience, (2) senior level policy-making positions, (3) other public company board experience, (4) diversity, (5) intangible attributes, (6) prior BNY Mellon Board experience, and (7) Board attendance and participation.
- The nominees have skills and expertise in a wide range of areas, including technology, accounting, private equity, financial regulation, financial services, global management, insurance, risk management and legal matters.
- The nominees are able to devote the necessary time and effort to BNY Mellon matters.

The Board of Directors unanimously recommends that you vote

"FOR" each of the nominees described below.

Voting

We do not know of any reason why any nominee named in this proxy statement would be unable to serve as a director if elected. If any nominee is unable to serve, the shares represented by all valid proxies will be voted for the election of such other person as may be nominated in accordance with our by-laws, as described on page 17. Proxies cannot be voted for a greater number of persons than the number of nominees named in this proxy statement.

Each director will be elected if more votes are cast "for" the director's election than are cast "against" the director's election, with abstentions and broker non-votes not being counted as a vote cast either "for" or "against" the director's election. Pursuant to our Corporate Governance Guidelines, if any incumbent director fails to receive a majority of the votes cast, the director will be required to tender his or her resignation promptly after the certification of the stockholder vote. Our CG&N Committee will promptly consider the tendered resignation and recommend to the Board whether to accept or reject it, or whether other actions should be taken. More information on our voting standard and the CG&N Committee's consideration of tendered resignations is provided on page 17 below.

Linda Z. Cook

Age 58

Independent Director since 2016

Managing Director of EIG Global Energy Partners and CEO of Harbour Energy, Ltd.

Retired Executive Committee Member and Director of Royal Dutch Shell plc

Committees: Corporate Governance and Nominating, Risk

Other Current Public Company Board Service: None

Ms. Cook is a Managing Director and member of the Executive Committee of EIG Global Energy Partners, an investment firm focused on the global energy industry, and CEO of Harbour Energy, Ltd., an energy investment vehicle. Ms. Cook joined EIG in 2014, after spending over 29 years with Royal Dutch Shell at various companies in the U.S., the Netherlands, the United Kingdom and Canada. At her retirement from Royal Dutch Shell, Ms. Cook was a member of the Executive Committee in the Netherlands headquarters and a member of the Board of Directors. Her primary executive responsibility was Shell's global upstream Natural Gas business in addition to oversight for Shell's global trading business, Shell Renewable Energy, and Shell's Downstream R&D and Major Projects organizations. Ms. Cook previously was CEO of Shell Canada Limited, CEO of Shell Gas & Power and Executive VP of Finance, Strategy and HR for Shell's global Exploration and Production businesses.

Ms. Cook has previously served on the Boards of Directors of KBR, Inc., The Boeing Company, Marathon Oil Corporation, Cargill Inc., Royal Dutch Shell plc, Royal Dutch Shell Petroleum Co. NV and Shell Canada Limited. Ms. Cook is also a member of the National Petroleum Council, an advisory committee to the U.S. Secretary of Energy, and the Society of Petroleum Engineers and is a Trustee of the University of Kansas Endowment Association. Ms. Cook earned a Bachelor of Science degree in Petroleum Engineering from the University of Kansas.

Skills and Expertise:

- International business operations experience at a senior policy-making level of a large, complex company
- Expertise in financing, operating and investing in companies
- Extensive service on the boards of several large public companies in regulated industries

Nicholas M. Donofrio

Age 71

Independent Director of BNY Mellon and predecessor companies since 1999

Retired Executive Vice President, Innovation and Technology of IBM Corporation

Committees: Corporate Governance and Nominating, Corporate Social Responsibility, Risk, Technology (Chairman)

Other Current Public Company Board Service: Advanced Micro Devices, Inc.; Delphi Automotive PLC

Mr. Donofrio served as Executive Vice President, Innovation and Technology of International Business Machines ("IBM") Corporation, a developer, manufacturer and provider of advanced information technologies and services, from 2005 until his retirement in 2008. Mr. Donofrio previously served as Senior Vice President, Technology and Manufacturing of IBM Corporation from 1997 to 2005 and spent a total of 44 years as an employee of IBM Corporation. In addition to the public company board service noted above, Mr. Donofrio currently serves as a director of Liberty Mutual Group. He previously served as a director of The Bank of New York Company, Inc. ("The Bank of New York") from 1999 to 2007 and has served as a director of the company since 2007.

Mr. Donofrio holds seven technology patents and is a member of numerous technical and science honor societies. Mr. Donofrio serves as a director of the National Association of Corporate Directors, is a Trustee Emeritus of the New York Hall of Science, is a director of Sproxil, Inc. and O'Brien & Gere, is on the board of advisors of StarVest Partners, L.P. and Ultra Capital, LLC and is a member of the Board of Trustees of Syracuse University. Mr. Donofrio earned a Bachelor of Science degree from Rensselaer Polytechnic Institute and a Master of Science degree from Syracuse University.

Skills and Expertise:

- Expertise in technology issues
- Senior level policy-making experience in the field of engineering
- Teaching and training in the area of innovation

Leadership | Technology | Global | Finance | Governance | Research | Diversity

Joseph J. Echevarria

Age 60

Independent Director since 2015; Lead Director since 2016

Retired CEO of Deloitte LLP

Committees: Audit (Chairman), Corporate Social Responsibility, Finance

Other Current Public Company Board Service: Pfizer Inc.; Unum Group; Xerox Corporation

Mr. Echevarria served as Chief Executive Officer of Deloitte LLP, a global provider of professional services, from 2011 until his retirement in 2014. Mr. Echevarria previously served in increasingly senior leadership positions during his 36-year career at the firm, including U.S. Managing Partner for Operations, prior to being named Chief Executive Officer. In addition to the public company board service noted above, Mr. Echevarria currently serves as a Trustee of the University of Miami and a Member of the Private Export Council, the principal national advisory committee on international trade. He also serves as the Chair Emeritus of former President Obama's My Brother's Keeper Alliance. Mr. Echevarria has served as a director of the company since 2015. Mr. Echevarria earned his bachelor's degree in business administration from the University of Miami.

Skills and Expertise:

- Leadership of a large, global company
- Financial expert, with expertise in accounting, regulatory and compliance issues
- Senior level policy-making experience in the field of professional services

Edward P. Garden

Age 55

Independent Director since 2014

Chief Investment Officer and a founding partner of Trian Fund Management, L.P.

Committees: Corporate Governance and Nominating, Finance, Human Resources and Compensation (Chairman), Risk

Other Current Public Company Board Service: Pentair plc

Mr. Garden has been Chief Investment Officer and a founding partner of Trian Fund Management, L.P. ("Trian"), a multi-billion dollar alternative investment management firm, since November 2005. He has served as a director of the company since 2014.

Mr. Garden served as a director of Family Dollar Stores, Inc., a discount retailer, from September 2011 until its acquisition by Dollar Tree, Inc. in July 2015, and as a director of The Wendy's Company from December 2004 to December 2015. Previously he served as Vice Chairman and a director of Triarc Companies, Inc. from December 2004 through June 2007 and Executive Vice President from August 2003 until December 2004. From 1999 to 2003, Mr. Garden was a managing director of Credit Suisse First Boston, where he served as a senior investment banker in the Financial Sponsors Group. From 1994 to 1999, he was a managing director at BT Alex Brown, where he was a senior member of the Financial Sponsors Group and, prior to that, co-head of Equity Capital Markets. Mr. Garden graduated from Harvard College with a B.A. in Economics.

Skills and Expertise:

- Experience in finance
- Expertise in financing, operating and investing in companies
- Extensive service on the boards of several large public companies

Leadership | Technology | Global | Finance | Governance | Research | Diversity

Jeffrey A. Goldstein

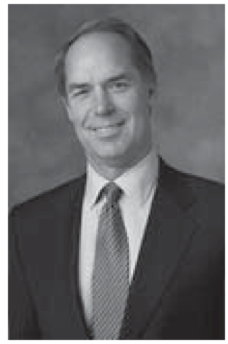
Age 61

Independent Director since 2014

Senior Advisor, Hellman & Friedman LLC and Former Under Secretary of the Treasury for Domestic Finance

Committees: Finance (Chairman), Human Resources and Compensation, Risk

Other Current Public Company Board Service: Westfield Corporation



Gerald L. Hassell

Age 65

Management Director of BNY Mellon and predecessor companies since 1998

Chairman and Chief Executive Officer of The Bank of New York Mellon Corporation

Committees: None

Other Current Public Company Board Service: Comcast Corporation

Mr. Goldstein is a Senior Advisor at Hellman & Friedman LLC, a private equity firm. He was a Managing Director at Hellman & Friedman from 2011 to 2016 and was previously at the firm from 2004 to 2009. He was Under Secretary of the Treasury for Domestic Finance and Counselor to the Secretary of the Treasury from 2009 to 2011. Mr. Goldstein has served as a director of the company since 2014.

Mr. Goldstein worked at James D. Wolfensohn Inc. and successor firms for 15 years. When Wolfensohn & Co. was purchased by Bankers Trust in 1996, he served as co-chairman of BT Wolfensohn and as a member of Bankers Trust's management committee. In 1999, Mr. Goldstein became a managing director of the World Bank. He also served as its Chief Financial Officer beginning in 2003. In July of 2009, President Barack Obama nominated Mr. Goldstein to be Under Secretary of the Treasury for Domestic Finance. In July 2011, Secretary of the Treasury Timothy F. Geithner awarded Mr. Goldstein with the Alexander Hamilton award, the highest honor for a presidential appointee. Earlier in his career Mr. Goldstein taught economics at Princeton University and worked at the Brookings Institution. In addition to the public company board service noted above, Mr. Goldstein is a member of the Board of Directors of Edelman Financial Services, LLC and on the Advisory Board of Promontory Financial Group, LLC. He also serves on the Board of Trustees of Vassar College. Mr. Goldstein earned a Bachelor of Arts degree from Vassar College and a Master of Arts, Master of Philosophy and a Ph.D. in economics from Yale University.

Skills and Expertise:

- Experience in private equity
- Expertise in the operations of large financial institutions
- Experience in financial regulation and banking

Mr. Hassell has served as our Chief Executive Officer since 2011 and served as our President since the merger of The Bank of New York and Mellon Financial Corporation ("Mellon") in 2007 (the "merger") through 2012. Prior to the merger, Mr. Hassell served as President of The Bank of New York from 1998 to 2007. He served as a director of The Bank of New York from 1998 to 2007 and has served as a director of the company since 2007. Since joining The Bank of New York's Management Development Program more than three decades ago, Mr. Hassell has held a number of key leadership positions within the company in securities servicing, corporate banking, credit, strategic planning and administration services.

In addition to the public company board service noted above, Mr. Hassell is also a director of the Lincoln Center for the Performing Arts, Vice Chair of Big Brothers/Big Sisters of New York and a member of the Board of Visitors of Columbia University Medical Center. Mr. Hassell holds a Bachelor of Arts degree from Duke University and a Master in Business Administration degree from the New York University Stern School of Business.

Skills and Expertise:

- Knowledge of the company's businesses and operations
- Participation in financial services industry associations
- Experience in the financial services industry

Leadership Technology Global Finance Governance Research Diversity

John M. Hinshaw

Age 46

Independent Director since 2014

Former Executive Vice President and Chief Customer Officer of Hewlett Packard Enterprise Company

Committees: Risk, Technology

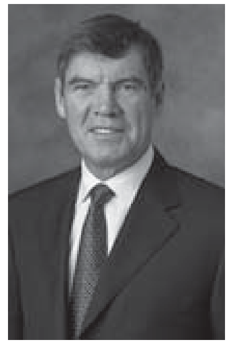
Other Current Public Company Board Service: None

Mr. Hinshaw served as Executive Vice President of Hewlett Packard and Hewlett Packard Enterprise from 2011 to 2016, running Technology and Operations and serving as Chief Customer Officer. Mr. Hinshaw has served as a director of the company since 2014.

Prior to joining Hewlett-Packard Company, Mr. Hinshaw served as Vice President and General Manager for Boeing Information Solutions at The Boeing Company. Before that, he served as Boeing's Chief Information Officer and led their companywide corporate initiative on information management and information security. Mr. Hinshaw also spent 14 years at Verizon Communications where, among several senior roles, he was Senior Vice President and Chief Information Officer of Verizon Wireless, overseeing the IT function of the wireless carrier. Mr. Hinshaw is also a board member of DocuSign, Inc., a provider of electronic signature transaction management, and NAF, an educational non-profit organization. He received a B.B.A. in Computer Information Systems and Decision Support Sciences from James Madison University.

Skills and Expertise:

- Technology and management expertise
- Experience in the operations of large, complex companies
- Leadership roles in several different industries



Edmund F. "Ted" Kelly

Age 71

Independent Director of BNY Mellon and predecessor companies since 2004

Retired Chairman of Liberty Mutual Group

Committees: Human Resources and Compensation, Risk (Chairman)

Other Current Public Company Board Service: None

Mr. Kelly served as Chairman (from 2000 to 2013), President (from 1992 to 2010) and Chief Executive Officer (from 1998 to 2011) of Liberty Mutual Group, a multi-line insurance company. Mr. Kelly served as a director of Mellon from 2004 to 2007 and has served as a director of the company since 2007.

Mr. Kelly's experience also includes senior-level management positions at Aetna Life & Casualty Company. Mr. Kelly was a director of Citizens Financial Group Inc., where he served as Chair of the Audit Committee and Chair of the Joint Risk Assessment Committee. Mr. Kelly is also a member of the Board of Trustees of the Boston Symphony Orchestra; a member of the Senior Advisory Council of the New England College of Business and Finance; a member of the Bretton Woods Committee; a past member of the Board of Trustees for Boston College and former President of the Boston Minuteman Council of the Boy Scouts of America. Mr. Kelly received a Bachelor of Arts degree from Queen's University in Belfast and a Ph.D. from the Massachusetts Institute of Technology.

Skills and Expertise:

- Leadership of a large public company in a highly regulated industry
- Experience in risk management
- Senior level policy-making experience in the insurance industry

Leadership *Technology* *Global* *Finance* *Governance* *Research* *Diversity*

John A. Luke, Jr.

Age 68

Independent Director of BNY Mellon and predecessor companies since 1996

Non-Executive Chairman of WestRock Company

Committees: Audit, Corporate Governance and Nominating

Other Current Public Company Board Service: The Timken Company; WestRock Company; Dominion Midstream Partners, LP

Mr. Luke has served as non-executive Chairman of WestRock Company, a global paper and packaging company, since July 2015 when it was formed by the merger of Rock-Tenn Company and MeadWestvaco Corporation. Mr. Luke previously served as Chairman and Chief Executive Officer of MeadWestvaco Corporation from 2002 to July 2015. Mr. Luke served as a director of The Bank of New York from 1996 to 2007 and has served as a director of the company since 2007.

In addition to the public company board service noted above, Mr. Luke is also a director of FM Global and a former director and chairman of the National Association of Manufacturers and the American Forest & Paper Association. He is a trustee of the American Enterprise Institute for Public Policy Research, serves on the boards of the US China and India Business Councils and is a former member of the President's Export Council. Mr. Luke is also a trustee of the Colonial Williamsburg Foundation and the Virginia Museum of Fine Arts, and is Rector and a member of the Board of Visitors of Virginia Commonwealth University. Mr. Luke served as an officer with the U.S. Air Force in Southeast Asia during the Vietnam conflict. He earned a Bachelor of Arts degree from Lawrence University and a Master in Business Administration degree from The Wharton School of Business at the University of Pennsylvania.

Skills and Expertise:

- Leadership of a large public company
- Experience managing finance, operations and marketing of an international business
- Senior level policy-making experience in the manufacturing industry

Jennifer B. Morgan

Age 45

Independent Director since 2016

President of SAP North America

Committees: Audit, Technology

Other Current Public Company Board Service: None

Ms. Morgan has served as President of SAP North America since 2014, where she is responsible for the company's strategy, revenue and customer success in the U.S. and Canada. Since being named President, she has led SAP's rapid shift to the cloud in North America while helping customers achieve growth in the digital economy. Ms. Morgan served in a number of leadership roles for SAP since joining the company in 2004, including as head of SAP North America's public sector organization and president of its Regulated Industries business unit. In these roles, Ms. Morgan was a recognized thought-leader on government and public sector technology innovation, represented SAP to the U.S. Government and testified before Congress on technology and acquisition issues. Earlier in her career, Ms. Morgan served in various management roles at Siebel Systems and Accenture.

Ms. Morgan is an executive advisory board member of James Madison University College of Business and a board member of NAF, an educational non-profit organization bringing education, business and community leaders together to transform the high school experience, and GENYOUth, an organization dedicated to improving the health and wellness of the next generation of young leaders. Ms. Morgan earned a Bachelor of Business Administration degree from James Madison University.

Skills and Expertise:

- Leadership and client experience with technology as a business driver
- Experience in the operations at large, complex global companies

Leadership | Technology | Global | Finance | Governance | Research | Diversity

Mark A. Nordenberg

Age 68

Independent Director of BNY Mellon and predecessor companies since 1998

Chancellor Emeritus, Chair of the Institute of Politics and Distinguished Service Professor of Law of the University of Pittsburgh

Committees: Audit, Corporate Governance and Nominating (Chairman), Corporate Social Responsibility, Technology

Other Current Public Company Board Service: None

Mr. Nordenberg served as Chancellor and Chief Executive Officer of the University of Pittsburgh, a major public research university, from 1996 to August 2014. He currently serves as Chancellor Emeritus, Chair of the Institute of Politics and Distinguished Service Professor of Law at the University. Mr. Nordenberg served as a director of Mellon from 1998 to 2007 and has served as a director of the company since 2007.

Mr. Nordenberg joined the University of Pittsburgh's law faculty in 1977 and served as Dean of the School of Law from 1985 until 1993. Mr. Nordenberg was the interim Provost and Senior Vice Chancellor for Academic Affairs from 1993 to 1994, and interim Chancellor from 1995 to 1996. A specialist in legal process and procedure, including civil litigation, he has published books, articles and reports on this topic, and has served as a member of both the U.S. Advisory Committee on Civil Rules and the Pennsylvania Supreme Court's Civil Procedural Rules Committee. He is a former director and executive committee member of the Association of American Universities and has served on the boards of national and regional organizations promoting innovation and economic progress. Mr. Nordenberg received his Bachelor of Arts degree from Thiel College and his Juris Doctorate degree from the University of Wisconsin School of Law.

Skills and Expertise:

- Legal expertise
- Leadership of a major research university
- Experience in the operations and management of a large institution

Elizabeth E. Robinson

Age 48

Independent Director since 2016

Retired Global Treasurer of The Goldman Sachs Group, Inc.

Committees: Finance, Risk

Other Current Public Company Board Service: None

Ms. Robinson served as Global Treasurer, Partner and Managing Director of The Goldman Sachs Group, Inc., the global financial services company, from 2005 to 2015. Prior to that, Ms. Robinson served in the Financial Institutions Group within the Investment Banking Division of Goldman Sachs.

Ms. Robinson is a trustee of Williams College and MASS MoCA and was, until August 2016, a director of Goldman Sachs Bank USA. Ms. Robinson received a Bachelor of Arts degree from Williams College and an M.B.A. from Columbia University.

Skills and Expertise:

- Experience in finance and risk management
- Experience in financial regulation and banking
- Leadership in the operations of a large global financial institution

Leadership | Technology | Global | Finance | Governance | Research | Diversity

Samuel C. Scott III

Age 72

Independent Director of BNY Mellon and predecessor companies since 2003

Retired Chairman, President and Chief Executive Officer of Ingredion Incorporated (formerly Corn Products International, Inc.)

Committees: Audit, Corporate Social Responsibility (Chairman), Human Resources and Compensation

Other Current Public Company Board Service: Abbott Laboratories; Motorola Solutions, Inc. (lead director)

Prior to his retirement in 2009, Mr. Scott served as Chairman (since 2001), Chief Executive Officer (since 2001) and President and Chief Operating Officer (since 1997) of Corn Products International, Inc., a leading global ingredients solutions provider now known as Ingredion Incorporated. Mr. Scott previously served as President of CPC International's Corn Refining division from 1995 to 1997 and President of American Corn Refining from 1989 to 1997. In addition to the public company board service noted above, Mr. Scott also serves on the boards of, among others, Chicago Sister Cities, Northwestern Medical Group, the Chicago Urban League, The Chicago Council on Global Affairs and Get IN Chicago. Mr. Scott received both a Bachelor of Science degree and a Master in Business Administration degree from Fairleigh Dickinson University. Mr. Scott served as a director of The Bank of New York from 2003 to 2007 and has served as a director of the company since 2007.

Skills and Expertise:

- Senior level policy-making experience in the food industry
- Leadership of international company
- Experience in the operations and management of a large public company

Leadership Technology Global Finance Governance Research Diversity

Director Qualifications

The CG&N Committee assists the Board in reviewing and identifying individuals qualified to become Board members. The CG&N Committee utilizes Board-approved criteria, set forth in our Corporate Governance Guidelines (see "Helpful Resources" on page 88), in recommending nominees for directors at Annual Meetings and to fill vacancies on the Board. Directors chosen to fill vacancies will hold office for a term expiring at the end of the next Annual Meeting.

In selecting nominees for election as directors, our CG&N Committee considers the following with respect to Board composition:

- **Professional background and experience**. The individual's specific experience, background and education, including skills and knowledge essential to the oversight of the company's businesses.
- **Senior-level management positions**. The individual's sustained record of substantial accomplishments in senior-level management positions in business, government, education, technology or not-for-profit enterprises.
- **Judgment and Challenge**. The individual's capability of evaluating complex business issues and making sound judgments and constructively challenging management's recommendations and actions.
- **Diversity**. The individual's contribution to the diversity of the Board (in all aspects of that term), including viewpoints, professional experience, education, skills and other individual qualities such as race, gender and ethnicity, and the variety of attributes that contribute to the Board's collective strength.
- **Intangible attributes**. The individual's character and integrity and interpersonal skills to work with other directors on our Board in ways that are effective, collegial and responsive to the needs of the company.
- **Time**. The individual's willingness and ability to devote the necessary time and effort required for service on our Board.
- **Independence**. The individual's freedom from conflicts of interest that could interfere with their duties as a director.
- **Stockholders' interests**. The individual's strong commitment to the ethical and diligent pursuit of stockholders' best interests.

The CG&N Committee seeks individuals with leadership experience in a variety of contexts and, among public company leaders, across a variety of industries. The CG&N Committee will evaluate all candidates suggested by other directors or third-party search firms (which the company retains from time to time, including over the past year, to help identify potential candidates) or recommended by a stockholder for nomination as a director in the same manner. For information on recommending a candidate for nomination as a director see "Contacting the Board' on page 30.

The Board and the CG&N Committee have concluded that each of our current Board members should be recommended for re-nomination as a director. In considering whether to recommend re-nomination of a director for election at our Annual Meeting, the Board and the CG&N Committee considered, among other factors:

- The **criteria for the nomination of directors** described above,
- **Feedback from the annual Board and committee evaluations**,
- **Attendance and preparedness** for Board and committee meetings,
- **Outside board and other affiliations**, for actual or perceived conflicts of interest,
- The **overall contributions to the Board**, and
- The **needs of the company**.

Each of the nominees for election as director, other than Mses. Cook, Morgan and Robinson, was elected as a director at our 2016 Annual Meeting. Ms. Robinson was appointed a director effective October 3, 2016 and was recommended to the CG&N Committee for consideration as a candidate after members of management who had become acquainted with her through her work with The Goldman Sachs Group, Inc. learned of her impending retirement. Each of Mses. Cook and Morgan was appointed a director effective December 1, 2016; they were recommended to the CG&N Committee for consideration as a candidate by a third-party search firm and a director, respectively. Our Board believes that each of the nominees meet the criteria described above with diversity and depth and breadth of experience that enable them to oversee management of the company as an effective and engaged Board. No director has a family relationship to any other director, nominee for director or executive officer.

Catherine A. Rein, who was elected as a director at our 2016 Annual Meeting, will not be standing for reelection. The Board is grateful to Ms. Rein for her invaluable contributions as a director during her more than 35 years of service to the company and The Bank of New York. The Board will miss the camaraderie, commitment, insight and perspective of Ms. Rein.

Majority Voting Standard

Under our by-laws, in any uncontested election of directors, each director will be elected if more votes are cast "for" the director's election than are cast "against" the director's election, with abstentions and broker non-votes not being counted as a vote cast either "for" or "against" the director's election. A plurality standard will apply in any contested election of directors, which is an election in which the number of nominees for director exceeds the number of directors to be elected. Pursuant to our Corporate Governance Guidelines, if any incumbent director fails to receive a majority of the votes cast in any uncontested election, the director will be required to tender his or her resignation to the Lead Director (or such other director designated by the Board if the director failing to receive the majority of votes cast is the Lead Director) promptly after the certification of the stockholder vote.

Our CG&N Committee will promptly consider the tendered resignation and recommend to the Board whether to accept or reject it, or whether other actions should be taken. In considering whether to accept or reject the tendered resignation, the CG&N Committee will consider whatever factors its members deem relevant, including any stated reasons for the "against" votes, the length of service and qualifications of the director whose resignation has been tendered, the director's contributions to the company, and the mix of skills and backgrounds of the Board members. The Board will act on the CG&N Committee's recommendation no later than 90 days following the certification of the election in question. In considering the recommendation of the CG&N Committee, the Board will consider the factors considered by the CG&N Committee and such additional information and factors as it deems relevant.

Following the Board's decision, the company will publicly disclose the Board's decision in a Current Report on Form 8-K filed with the Securities and Exchange Commission ("SEC"). If the Board does not accept the director's resignation, it may elect to address the underlying stockholder concerns or to take such other actions as it deems appropriate and in the best interests of the company and its stockholders. A director who tenders his or her resignation pursuant to this provision will not vote on the issue of whether his or her tendered resignation will be accepted or rejected. If the Board accepts an incumbent director's resignation pursuant to this provision, or if a nominee for director is not elected and the nominee is not an incumbent director, then the Board may fill the resulting vacancy pursuant to our by-laws. If the Board does not accept an incumbent director's resignation pursuant to this provision, he or she will continue to serve on the Board until the election of his or her successor.

Our Corporate Governance Practices

We believe that the strength of BNY Mellon's business is a direct reflection of the high standards set by our governance structure. It provides guidance in managing the company from the Board of Directors on down for the benefit of all our stakeholders including our investors, clients, employees and communities. Our key governance practices are described below.

Independence	• Our Board is comprised of all independent directors, other than our Chief Executive Officer, and our independent directors meet in **executive sessions** led by our Lead Director at each regularly scheduled Board and committee meeting. • Reflecting our Board's focus on refreshment, in 2016 our Board added three new diverse directors. • Our **independent Lead Director** is selected annually by our independent directors and has broad powers, including approval of Board meeting agendas, materials and schedules, leading executive sessions and consulting with the Chairman of the Human Resources and Compensation Committee ("HRC Committee") on CEO performance, compensation and succession. • Our standing committees are composed entirely of **independent directors**.
Active Engagement	• We had a **high rate of director attendance** at Board and committee meetings in 2016, averaging 93%. • We have continued to **actively engage with our stakeholders** through multiple initiatives, inviting feedback from investors representing about 45% of our outstanding shares and reaching investors representing almost 30% of our outstanding shares, as well as with proxy advisory firms and other stakeholders. • Our Board publicly **endorsed the Shareholder-Director Exchange (SDX) Protocol** as a guide to support effective engagement between stockholders and directors. • Stockholders and other interested parties can **directly contact our Board** (see "Helpful Resources" on page 88).
Ongoing Improvements	• Our Corporate Governance Guidelines require that the Corporate Governance and Nominating Committee **rotate the Lead Director and committee Chairmen** at five-year intervals and **consider enhanced director qualifications** in connection with director nominations. • Following engagement with stockholders, in 2015 we adopted **proxy access** and further refined our proxy disclosures regarding executive compensation and the annual Board self-evaluation process and resulting enhancements. • Our by-laws permit holders in the aggregate of 20% of our outstanding common stock to **call a special stockholder meeting**. • Our Board and each of our standing committees conduct annual **self-evaluations** that have resulted in enhancements to the Board (see "Evaluation of Board and Committee Effectiveness" on page 19). • Our Board participates in **information sessions** during regularly scheduled and special meetings, during which they receive business, regulatory and other updates from senior management, risk executives and our General Counsel. • Directors are encouraged to participate in **continuing education** programs and our company reimburses directors for such expenses. • We amended our Corporate Governance Guidelines to refine the Lead Director duties and responsibilities and **limit** any director who also serves as an executive officer of a publicly traded company to service on the board of one other public company in addition to our Board.

Robust Programs	• A significant portion of director compensation is paid in **deferred stock units**, which must be held as long as the director serves on the Board. • We have adopted **codes of conduct** applicable to our directors, as well as all of our employees, to provide a framework for the highest standards of professional conduct and to foster a culture of honesty and accountability. • We have enhanced our thorough and robust **director orientation program** in which new directors participate in their first six months as a director.
What We Don't Do	• **No staggered board.** • **No "poison pill"** (stockholders' rights plan). • **No supermajority voting.** Action by stockholders requires only a majority of the votes cast (not a majority of the shares present and entitled to vote). • **No plurality voting** in uncontested director elections. Each director must be elected by a majority of the votes cast.

Corporate Governance Developments

Based on stockholder engagement, over the last few years our Board has been focused on Board refreshment and has redoubled its succession efforts accordingly. In 2016, our Board added three new diverse directors. Since August 2014, six of our directors have retired or announced their retirement and our Board has added seven new directors over that same period. Each of these new directors has added experience and unparalleled expertise to our Board, complementing and supplementing the experience and talents of our Board as a whole. Although the CG&N Committee is principally involved in Board succession and recruitment, our entire Board plays a role in recruiting, interviewing and assessing candidates. Our Board's succession planning is ongoing and will continue to be robust as it seeks to further enhance the diversity of our Board while balancing necessary continuity.

Our Board, led by our CG&N Committee, also continually seeks to improve our governance structures, and has recently made the following enhancements:

- to ensure our directors have sufficient time to devote to BNY Mellon matters, amended our Corporate Governance Guidelines such that any director who also serves as an executive officer of a publicly traded company can only serve on the board of one other publicly traded company in addition to our Board,
- amended our Corporate Governance Guidelines to clarify the role of the Lead Director, in connection with our chief executive officer's compensation, succession planning and the Board's annual performance evaluation,
- amended our Corporate Governance Guidelines to require rotation of the Lead Director at a five-year interval,
- amended our Corporate Governance Guidelines to reflect areas of consideration in the annual Board self-evaluation, and
- eliminated the Executive Committee, in recognition of the ability to convene the Board in exigent circumstances.

As previously disclosed, during 2016 our Board elected Mr. Echevarria as our new Lead Director, consistent with our Board's succession planning. In addition, our Board elected new chairs to the CG&N, Corporate Social Responsibility and Human Resources and Compensation Committees in 2016. We anticipate the election of a new chair to the Technology Committee in 2017.

Evaluation of Board and Committee Effectiveness

Annually, the Board and each of our standing committees conducts a self-evaluation to continually enhance performance. The Board and management then work together to enhance Board and committee effectiveness in light of the results of the self-evaluations.

The CG&N Committee, in consultation with the Lead Director, will determine the process, scope and contents of the Board's annual performance evaluation. Areas of consideration in the Board self-evaluations include director contribution and performance, Board structure and size, Board dynamics, the range of business, professional and other backgrounds of directors necessary to serve the company and the range and type of information provided to the Board by management.

Based on the CG&N Committee's determination of the evaluation process and scope, each standing committee self-evaluation is conducted in an executive session led by the chairman of the committee. The results of the self-evaluation of each standing committee are reported to the full Board.

As a result of the most recent round of Board and committee self-evaluations, the Board determined to refine committee reporting to the Board to convey matters discussed and actions taken. The Board also decided that all directors should have access to materials for all committees as a good governance practice. Finally, the directors suggested enhancements to the new director orientation program which have been implemented, including additional one-on-one sessions with our executive officers.

Active Stockholder Engagement Program

We conduct extensive governance reviews and investor outreach throughout the year, and our Board has formally endorsed the SDX Protocol which offers guidance to public company boards and stockholders on when engagement is appropriate, and how to make these engagements valuable and effective. Our independent directors engage in outreach discussions along with management to ensure that both management and our Board are aware of and consider stockholders' perspectives on a variety of issues, including governance, strategy and performance, and address those matters effectively. For example, our implementation of proxy access was informed by the discussions among directors, management and stockholders with respect to certain provisions. Additionally, following feedback from stockholders regarding our annual Board and committee self-evaluation process, we have refined our proxy statement to include discussion regarding this important process and subsequent actions to continuously enhance Board and committee function.

Board Leadership Structure

Our Board has reviewed its current leadership structure — which consists of a combined Chairman and Chief Executive Officer with an independent Lead Director — in light of the Board's composition, the company's size, the nature of the company's business, the regulatory framework under which the company operates, the company's stockholder base, the company's peer group and other relevant factors. Our Board has determined that a combined Chairman and Chief Executive Officer position, with an independent Lead Director, continues to be the most appropriate Board leadership structure for the company and promotes Board effectiveness.

Efficient and Effective Action	A combined Chairman/Chief Executive Officer: • Is in the **best position to be aware of major issues** facing the company on a day-to-day and long-term basis, and to identify and bring key risks and developments facing the company to the Board's attention (in coordination with the Lead Director as part of the agenda-setting process), and • Eliminates the potential for uncertainty as to who leads the company, providing the company with **a single public "face"** in dealing with stockholders, employees, regulators, analysts and other constituencies. • A substantial majority of our peers also utilize a similar board structure with a combined Chairman and Chief Executive Officer, as well as a lead or presiding independent director.
Strong Counterbalances	As set forth in our Corporate Governance Guidelines, our Lead Director: • **Reviews and approves**, in coordination with the Chairman and Chief Executive Officer, agendas for Board meetings, materials, information and meeting schedules, • Has the authority to add items to the agenda for any Board meeting, • **Presides at executive sessions** of independent directors, which are held at each regular Board and committee meeting, • Serves as a non-exclusive **liaison between the other independent directors** and the Chairman/Chief Executive Officer, • Can **call meetings of the independent directors** in his discretion and chairs any meeting of the Board or stockholders at which the Chairman is absent, • Is available to **meet with major stockholders and regulators** under appropriate circumstances, • Consults with the HRC Committee regarding its **consideration of Chief Executive Officer compensation**, • In conjunction with the chairman of the HRC Committee, discusses with the Chairman/Chief Executive Officer the Board's **annual evaluation of his performance as Chief Executive Officer**, • Consults with the HRC Committee on **Chief Executive Officer succession planning**, and • Consults with the Chairman of the CG&N Committee on the Board's annual performance evaluation. In addition, the powers of the Chairman under our by-laws are limited — other than chairing meetings of the Board and stockholders, the powers conferred on the Chairman (*e.g.*, ability to call special meetings of stockholders or the Board) can also be exercised by the Board or a specified number of directors or, in some cases, the Lead Director, or are administrative in nature (*e.g.*, authority to execute documents on behalf of the company).

Director Independence

Our Board has determined that 12 of our 13 director nominees are independent. Our independent director nominees are Linda Z. Cook; Nicholas M. Donofrio; Joseph J. Echevarria; Edward P. Garden; Jeffrey A. Goldstein; John M. Hinshaw; Edmund F. "Ted" Kelly; John A. Luke, Jr.; Jennifer B. Morgan; Mark A. Nordenberg; Elizabeth E. Robinson and Samuel C. Scott III. As our Chairman and Chief Executive Officer, Gerald L. Hassell is not independent. The Board has also determined that each of Mr. Kogan and Dr. Richardson, who did not stand for reelection as a director last year, Mr. von Schack, who resigned effective following our 2016 Annual Meeting, and Ms. Rein, who is not standing for reelection as a director this year, was independent during the period in 2016 in which he or she served as a director.

Our Standards of Independence

For a director to be considered independent, our Board must determine that the director does not have any direct or indirect material relationship with us. Our Board has established standards (which are also included in our Corporate Governance Guidelines) based on the specified categories and types of transactions, which conform to, or are more exacting than, the independence requirements of the New York Stock Exchange, or NYSE.

Our Board will also determine that a director is not independent if it finds that the director has material business arrangements with us that would jeopardize that director's judgment. In making this determination, our Board reviews business arrangements between the company and the director and between the company and any other company for which the director serves as an officer or general partner, or of which the director directly or indirectly owns 10% or more of the equity. Our Board has determined that these arrangements will not be considered material if:

- they are of a type that we usually and customarily offer to customers or vendors;
- they are on terms substantially similar to those for comparable transactions with other customers or vendors under similar circumstances;
- in the event that the arrangements had not been made or were terminated in the normal course of business, it is not reasonably likely that there would be a material adverse effect on the financial condition, results of operations or business of the recipient; or
- in the case of personal loans, the loans are subject to and in compliance with Regulation O of the Board of Governors of the Federal Reserve System.

Our Board may also consider other factors as it may deem necessary to arrive at sound determinations as to the independence of each director, and such factors may override the conclusion of independence or non-independence that would be reached simply by reference to the factors listed above.

In determining that each of the directors, other than Mr. Hassell, is independent, our Board reviewed these standards, the corporate governance rules of the NYSE and the SEC, and the individual circumstances of each director.

The following categories or types of transactions, relationships and arrangements were considered by the Board in determining that a director is independent. None of these transactions, relationships and arrangements rose to the level that would require disclosure under our related party transactions policy described on page 85, and none of the transactions described below were in an amount that exceeded the greater of $1 million or 2% of the other entity's consolidated gross revenues, which is one of our standards for director independence:

- ***Purchases of goods or services in the ordinary course of business***. The company and its subsidiaries purchased goods and services from the following organizations during a period in 2016 when one of our current independent directors served as an executive officer of, or was otherwise employed by, such organization: Hewlett Packard Enterprise Company (Mr. Hinshaw), SAP SE (Ms. Morgan) and the University of Pittsburgh (Mr. Nordenberg). All of these purchases were made in the ordinary course of business. These purchases, when aggregated by seller, did not exceed 0.06% of the seller's annual revenue for its last reported fiscal year or 0.17% of our annual revenue for 2016.
- ***Sales of goods or services in the ordinary course of business***. The company and its subsidiaries provided various financial services — including asset management services, asset servicing, global markets services, issuer services, treasury services, leasing, liquidity investment services or credit services — to the following organizations during a period in 2016 when one of our current independent directors served as an executive officer of, or was otherwise employed by, such organization: EIG Global Energy Partners (Ms. Cook); Trian Fund Management, L.P. (Mr. Garden); Hellman & Friedman LLC (Mr. Goldstein); Hewlett Packard Enterprise Company (Mr. Hinshaw) and the University of Pittsburgh (Mr. Nordenberg). All of the

services were provided in the ordinary course of our business and at prevailing customer rates and terms. The amount of fees paid to us by each purchaser was less than 0.2% of the purchaser's annual revenue for its last reported fiscal year and less than 0.01% of our annual revenue for 2016.

- ***Customer relationships***. We and our subsidiaries provide ordinary course services, including asset management services, banking services, broker services and credit services, to Messrs. Luke, Nordenberg and Richardson and Ms. Rein, in each case on terms substantially similar to those offered to other customers in similar circumstances.

- ***Charitable contributions***. We made (directly, through our subsidiaries or by the BNY Mellon Foundation or the BNY Mellon Foundation of Southwestern Pennsylvania) charitable contributions to not-for-profit, charitable or tax-exempt organizations for which one of our current or former independent directors served as a director, executive officer or trustee during 2016, namely Messrs. Donofrio, Echevarria, Goldstein, Nordenberg, Scott and von Schack. In 2016, charitable contributions to these organizations totaled approximately $700,000 in the aggregate, and none of these organizations received a contribution greater than $170,000.

- ***Beneficial ownership or voting power***. In the ordinary course of our investment management business, we beneficially own or have the power to vote (directly or through our subsidiaries or through funds advised by our subsidiaries) shares of companies for which one of our independent directors served as an executive officer in 2016, namely Hewlett Packard Enterprise Company (Mr. Hinshaw) and SAP SE (Ms. Morgan). As of December 31, 2016, we, our subsidiaries or funds advised by our subsidiaries, in the aggregate, owned or had the power to vote less than 1.01% of the outstanding shares of Hewlett Packard Enterprise Company and depositary receipts representing less than 0.03% of the outstanding shares of SAP SE.

Our Board determined that none of the transactions, relationships and arrangements described above constituted a material relationship between the respective director and our company or its subsidiaries for the purpose of the corporate governance rules of the NYSE and SEC and our Corporate Governance Guidelines. As such, our Board determined that these transactions, relationships and arrangements did not affect the independence of such director and did not impair such director's ability to act in the stockholders' best interests.

Oversight of Risk

Successful management of our company requires understanding, identification and management of risk. We oversee risk through multiple lines of defense.

Entity	Primary Responsibilities for Risk Management
Risk Committee, consisting entirely of independent directors	• Review and approval of the enterprise-wide risk management practices of the company. • Review and approval of the company's risk appetite statement on an annual basis, and approval of any material amendment to the statement. • Review of significant financial and other risk exposures and the steps management has taken to monitor, control and report such exposures. • Evaluation of risk exposure and tolerance, and approval of Board level limits or exceptions. • Review and evaluation of the company's policies and practices with respect to risk assessment and risk management. • Review, with respect to risk management and compliance, of (1) reports and significant findings of the company's Risk Management and Compliance department (the "Risk department") and the Internal Audit department ("Internal Audit"), (2) significant reports from regulatory agencies and management's responses, and (3) the Risk department's scope of work and its planned activities.
Audit Committee, consisting entirely of independent directors	• Review and discussion of policies with respect to risk assessment and risk management. • Oversight responsibility with respect to the integrity of our company's financial reporting and systems of internal controls regarding finance and accounting, as well as our financial statements. • Review of the Risk Committee's annual report summarizing its review of the company's methods for identifying and managing risks. • Review of the Risk Committee's semi-annual reports regarding corporate-wide compliance with laws and regulations. • Review of any items escalated by the Risk Committee that have significant financial statement impact or require significant financial statement/regulatory disclosures.
Management	• Chief Risk Officer: Implement an effective risk management framework and daily oversight of risk. • Internal Audit: Provide reliable and timely information to our Board and management regarding our company's effectiveness in identifying and appropriately controlling risks. • Senior Risk Management Committee: Provide a senior focal point within the company to monitor, evaluate and recommend comprehensive policies and solutions to deal with all aspects of risk and to assess the adequacy of any risk remediation plans in our company's businesses.

We also encourage robust interactions among the different parties responsible for our risk management. Since the financial crisis emerged in September 2008, the Risk and Audit Committees of our Board have held joint sessions at the beginning of each of their regular meetings to hear reports and discuss key risks affecting our company and our management of these risks.

All independent directors are typically present during joint sessions, because all independent directors are currently members of either our Risk or Audit Committee. In addition, the Risk Committee reviews the appointment, performance and replacement of our Chief Risk Officer, and the Senior Risk Management Committee's activities, and any significant changes in its key responsibilities, must be reported to the Risk Committee. Our company has also formed several risk management sub-committees to identify, assess and manage risks. Each risk management sub-committee reports its activities to the Senior Risk Management Committee and any significant changes in the key responsibilities of any sub-committee, or a change in chairmanship of any sub-committee, must be approved by our Chief Risk Officer and subsequently reported to the Senior Risk Management Committee.

Our company also has a comprehensive internal risk framework, which facilitates risk oversight by our Risk Committee. Our risk management framework is designed to:

- provide that risks are identified, monitored, reported, and priced properly;
- define and measure the type and amount of risk the company is willing to take;
- communicate the type and amount of risk taken to the appropriate management level;
- maintain a risk management organization that is independent of risk-taking activities; and
- promote a strong risk management culture that encourages a focus on risk-adjusted performance.

Our primary risk exposures as well as our risk management framework and methodologies are discussed in further detail on pages 65 through 70 in our 2016 Annual Report. See "How We Address Risk and Control" on page 59 below for a discussion of risk assessment as it relates to our compensation program.

Board Meetings and Committee Information

Board Meetings

Our Corporate Governance Guidelines provide that our directors are expected to attend our Annual Meeting of stockholders and all regular and special meetings of our Board and committees on which they sit. All of our directors then in office attended our 2016 Annual Meeting of stockholders.

Our Board held 14 meetings in 2016. Each incumbent director attended at least 75% of the aggregate number of meetings of our Board and of the committees on which he or she sat, and the average attendance rate was 93%.

Committees and Committee Charters

Our Board has established several standing committees, and each committee makes recommendations to our Board as appropriate and reports periodically to the entire Board. Our committee charters are available on our website (see "Helpful Resources" on page 88).

Audit Committee

Independent
13 Meetings in 2016

Joseph J. Echevarria (Chair), John A. Luke, Jr., Jennifer B. Morgan, Mark A. Nordenberg, Catherine A. Rein, Samuel C. Scott III

Independent Registered Public Accountant. Our Audit Committee has direct responsibility for the appointment, compensation, annual evaluation, retention and oversight of the work of the registered independent public accountants engaged to prepare an audit report or to perform other audit, review or attestation services for us. The Committee is responsible for the pre-approval of all audit and permitted non-audit services performed by our independent registered public accountants and each year, the Committee recommends that our Board request stockholder ratification of the appointment of the independent registered public accountants.

Overseeing Internal Audit Function. The Committee acts on behalf of our Board in monitoring and overseeing the performance of our internal audit function. The Committee reviews the organizational structure, qualifications, independence and performance of Internal Audit and the scope of its planned activities, at least annually. The Committee also approves the appointment of our internal Chief Auditor, who functionally reports directly to the Committee and administratively reports to the CEO, and annually reviews his or her performance and, as appropriate, replaces the Chief Auditor.

Internal Controls over Financial Statements and Reports. The Committee oversees the operation of a comprehensive system of internal controls covering the integrity of our financial statements and reports, compliance with laws, regulations and corporate policies. Quarterly, the Committee reviews a report from the company's Disclosure Committee and reports concerning the status of our annual review of internal control over financial reporting, including (1) information about (a) any significant deficiencies or material weaknesses in the design or operation of internal control over financial reporting that are reasonably likely to adversely affect our ability to record, process, summarize and report financial information and (b) any fraud, whether or not material, that involves management or other employees who have a significant role in our internal control over financial reporting, and (2) management's responses to any such circumstance. The Committee also oversees our management's work in preparing our financial statements, which will be audited by our independent registered public accountants.

Members and Financial Expert. The Committee consists entirely of directors who meet the independence requirements of listing standards of the NYSE, Rule 10A-3 under the Securities Exchange Act of 1934, as amended (the "Exchange Act") and the rules and regulations of the Federal Deposit Insurance Corporation ("FDIC"). All members are financially literate, have accounting or related financial management expertise within the meaning of the NYSE listing standards as interpreted by our Board and are outside directors, independent of management, under the FDIC's rules and regulations. Our Board has determined that each of Mr. Echevarria and Mr. Scott satisfies the definition of "audit committee financial expert" as set out in the rules and regulations under the Exchange Act, based upon their experience actively supervising a principal accounting or financial officer or public accountant and has "banking and financial management expertise" as set out in the FDIC's rules and regulations.

Corporate Governance and Nominating Committee

Independent
9 Meetings in 2016

Mark A. Nordenberg (Chair), Linda Z. Cook, Nicholas M. Donofrio, Edward P. Garden, John A. Luke, Jr., Catherine A. Rein,

Corporate Governance Matters. As further described on page 16, our CG&N Committee assists our Board of Directors in reviewing and identifying individuals qualified to become Board members. The Committee periodically considers the size of our Board and recommends changes to the size as warranted and is responsible for developing and recommending to our Board our Corporate Governance Guidelines and proposing changes to these guidelines from time to time as may be appropriate. In addition, the Committee oversees evaluations of our Board and its committees, reviews the structure and responsibilities of the Board's committees and annually considers committee assignments, recommending changes to those assignments as necessary.

Oversight of Director Compensation and Benefits. The Committee reviews non-employee director compensation and benefits on an annual basis and makes recommendations to our Board on appropriate compensation, and is responsible for approving compensation arrangements for non-employee members of the Boards of our significant subsidiaries.

Corporate Social Responsibility Committee

Independent
3 Meetings in 2016

Samuel C. Scott III (Chair), Nicholas M. Donofrio, Joseph J. Echevarria, Mark A. Nordenberg

Our Corporate Social Responsibility Committee's purpose is to promote a culture that emphasizes and sets high standards for corporate citizenship and to review corporate performance against those standards. The Committee is responsible for providing oversight of the company's programs regarding strategic philanthropy and employee community involvement, public policy and advocacy, including lobbying and political contributions, environmental management, corporate social responsibility of suppliers, corporate social responsibility governance and reporting and human rights. The Committee also provides oversight for the company's compliance with the Community Reinvestment Act and Fair Lending laws and considers the impact of the company's businesses, operations and programs from a social responsibility perspective, taking into account the interests of stockholders, clients, suppliers, employees, communities and regulators.

For additional information regarding the company's commitment to corporate social responsibility and the Committee's recent initiatives, see "Helpful Resources" on page 88.

Finance Committee

Independent
6 Meetings in 2016

Jeffrey A. Goldstein (Chair), Joseph J. Echevarria, Edward P. Garden, Elizabeth E. Robinson

The Finance Committee assists the Board in fulfilling its responsibilities with respect to the monitoring and oversight of the company's financial resources and strategies. The Committee's responsibilities and duties include reviewing: (1) financial forecasts, operating budgets, capital expenditures and expense management programs and progress relative to targets and relative to competitors; (2) plans with regard to net interest revenue, investment portfolio activities and progress relative to such plans and activities; (3) the company's capital structure, capital raising and capital distributions; and (4) any initiatives, including investments, mergers, acquisitions, and dispositions, that exceed the thresholds in our Corporate Governance Guidelines and, as necessary, making recommendations to the Board regarding those initiatives.

Human Resources and Compensation Committee

Independent
6 Meetings in 2016

Edward P. Garden (Chair), Jeffrey A. Goldstein, Edmund F. "Ted" Kelly, Samuel C. Scott III

Compensation and Benefits. The HRC Committee is generally responsible for overseeing our employee compensation and benefit policies and programs, our management development and succession programs, the development and oversight of a succession plan for the CEO position and our diversity and inclusion programs. The Committee also administers and makes equity and/or cash awards under plans adopted for the benefit of our employees to the extent required or permitted by the terms of these plans, establishes any related performance goals and determines whether and the extent to which these goals have been attained. The Committee also evaluates and approves the total compensation of the CEO and all other executive officers and makes recommendations concerning equity-based plans, which recommendations are subject to the approval of our entire Board. The Committee also oversees certain retirement plans that we sponsor to ensure that: (1) they provide an appropriate level of benefits in a cost-effective manner to meet our needs and objectives in sponsoring such plans; (2) they are properly and efficiently administered in accordance with their terms to avoid unnecessary costs and minimize any potential liabilities to us; (3) our responsibilities as plan sponsor are satisfied; and (4) financial and other information with respect to such plans is properly recorded and reported in accordance with applicable legal requirements.

CEO Compensation. The Committee reviews and approves corporate goals and objectives relevant to the compensation of our CEO, his performance in light of those goals and objectives, and determines and approves his compensation on the basis of its evaluation. With respect to the performance evaluation and compensation decisions regarding our CEO, the Committee reports its preliminary conclusions to the other independent directors of our full Board in executive session and solicits their input prior to finalizing the Committee's decisions.

Delegated Authority. The Committee has delegated to our CEO the responsibility for determining equity awards to certain employees, other than himself, who are eligible to receive grants under our Long-Term Incentive Plan ("LTIP"). This delegated authority is subject to certain limitations, including: (1) total aggregate shares represented by plan awards in any calendar year (1,100,000), (2) aggregate shares represented by plan awards that may be granted to any one individual in any calendar year (100,000), and (3) a sub-limit of shares represented by full value awards that may be granted in any calendar year (550,000). In addition, the Committee may delegate limited authority to our CEO to grant awards under the LTIP beyond these limits in connection with specific acquisitions or similar transactions.

Management Involvement. Our management provides information and recommendations for the Committee's decision-making process in connection with the amount and form of executive compensation, except that no member of management will participate in the decision-making process with respect to his or her own compensation. The "Compensation Discussion and Analysis" starting on page 35 discusses the role of our CEO in determining or recommending the amount and form of executive compensation. In addition, we address the role of our management and its independent compensation consultants and the role of the Committee's independent outside compensation advisor in determining and recommending executive compensation on page 29.

Risk Committee

Independent
5 Meetings in 2016

Edmund F. "Ted" Kelly (Chair), Linda Z. Cook, Nicholas M. Donofrio, Edward P. Garden, Jeffrey A. Goldstein, John M. Hinshaw, Elizabeth E. Robinson

See "Oversight of Risk" on page 24 above for a discussion of the Risk Committee's duties and responsibilities, which include: (1) review and approval of enterprise-wide risk management practices; (2) review and approval of the company's risk appetite statement; (3) review of significant financial and other risk exposures; (4) evaluation of risk exposure and tolerance; (5) review and evaluation of the company's policies and practices with respect to risk assessment and risk management; and (6) review, with respect to risk management and compliance, of certain significant reports. Our Board has determined that Mr. Kelly satisfies the independence requirements to serve as Chairman of the Risk Committee set out in the Board of Governors of the Federal Reserve System rules and has experience in identifying, assessing, and managing risk exposures of large, complex financial firms based upon his senior leadership experience of a multi-line insurance company.

Technology Committee

Independent
8 Meetings in 2016

Nicholas M. Donofrio (Chair), John M. Hinshaw, Jennifer B. Morgan, Mark A. Nordenberg

Technology Planning and Strategy. The Technology Committee is responsible for reviewing and approving the company's technology planning and strategy, reviewing significant technology investments and expenditures, and monitoring and evaluating existing and future trends in technology that may affect our strategic plans, including monitoring overall industry trends. The Committee receives reports from management concerning the company's technology and approves related policies or recommends such policies to the Board for approval, as appropriate. The Committee also oversees risks associated with technology.

Compensation Consultants to the HRC Committee

The HRC Committee has the sole authority to retain, terminate and approve the fees and other engagement terms of any compensation consultant directly assisting the committee, and may select or receive advice from any compensation consultant only after taking into consideration all factors relevant to the consultant's independence from management, including the factors set forth in the NYSE's rules.

The HRC Committee has engaged Compensation Advisory Partners LLC ("CAP") to serve as its independent compensation consultant since March 2014. As discussed in greater detail in the "Compensation Discussion and Analysis" beginning on page 35 below, throughout the year, CAP assists the committee in its analysis and evaluation of compensation matters relating to our executive officers. CAP reports directly to the committee, attends the in-person and telephonic meetings of the committee, and meets with the committee in executive session without management present. CAP also reviews and provides input on committee meeting materials and advises on other matters considered by the committee.

The HRC Committee annually reviews the independence of its compensation consultant. CAP works with management in executing its services to the committee, but does not provide services to management without pre-approval by the committee Chairman. In addition, CAP maintains, and has provided to the committee, a written policy designed to avoid, and address potential, conflicts of interest.

In 2016, neither CAP nor its affiliates provided any services to the company other than serving as the HRC Committee's independent compensation consultant. The committee considered the Company's relationship with CAP, assessed the independence of CAP pursuant to SEC and NYSE rules and concluded that there are no conflicts of interest that would prevent CAP from independently representing the committee.

Succession Planning

We have succession plans and processes in place for our Chairman and Chief Executive Officer, each of our Vice Chairmen and the team of approximately 700 global senior leaders. Our senior management succession planning process is an organization-wide practice designed to proactively identify, develop and retain the leadership talent that is critical for future business success.

The succession plan for our Chairman and Chief Executive Officer is reviewed regularly by the HRC Committee and the other independent directors. The plan identifies a "readiness" level and ranking for each internal candidate and also incorporates the flexibility to define an external hire as a succession option. Formal succession planning for the rest of our senior leaders is also a regular process, which also includes identifying a rank and readiness level for each potential internal candidate and also strategically planning for external hires for positions where, for example, gaps are identified. The HRC Committee and the Board review the succession plans for all management Executive Committee positions.

Contacting the Board

Interested parties may send communications to our Board or our independent directors or any Board committee through our Lead Director in accordance with the procedures set forth on our website (see "Helpful Resources" on page 88).

Our Corporate Secretary is authorized to open and review any mail or other correspondence received that is addressed to the Board or any individual director unless the item is marked "Confidential" or "Personal." If so marked and addressed to the Board, it will be delivered unopened to the Lead Director. If so marked and addressed to an individual director, it will be delivered to the addressee unopened. If, upon opening an envelope or package not so marked, the Corporate Secretary determines that it contains a magazine, solicitation or advertisement, the contents may be discarded. Any written communication regarding accounting matters to our Board of Directors are processed in accordance with procedures adopted by the Audit Committee with respect to the receipt, review and processing of, and any response to, such matters.

In addition, all directors are expected to attend each Annual Meeting of stockholders. While our by-laws, consistent with Delaware law, permit stockholder meetings to occur by remote communication, we intend this to be used only in exigent circumstances. Our Board believes that an in-person Annual Meeting provides an important opportunity for stockholders to ask questions.

Our Corporate Governance Guidelines provide that compensation for our independent directors' services may include annual cash retainers; shares of our common stock; deferred stock units or options on such shares; meeting fees; fees for serving as a committee chair; and fees for serving as a director of one of our subsidiaries. We also reimburse directors for their reasonable out-of-pocket expenses in connection with attendance at Board meetings. In the case of airfare, directors are reimbursed for their travel expenses not exceeding the first-class commercial rate. In addition, corporate aircraft and charter aircraft may be used for directors in accordance with the company's aircraft usage policy. Directors will also be reimbursed for reasonable out-of-pocket expenses (including tuition and registration fees) relating to attendance at seminars and training sessions relevant to their service on the Board and in connection with meetings or conferences which they attend at the company's request.

Each year, the CG&N Committee is responsible for reviewing and making recommendations to the Board regarding independent director compensation. The CG&N Committee annually reviews independent director compensation to ensure that it is consistent with market practice and aligns our directors' interests with those of long-term stockholders while not calling into question the directors' objectivity. In undertaking its review, the CG&N Committee utilizes benchmarking data regarding independent director compensation of the company's peer group based on public filings with the SEC, as well as survey information analyzing independent director compensation at U.S. public companies.

Based on its review, each year since 2014, the CG&N Committee has recommended, and the Board has approved, an annual equity award with a value of $130,000 for each independent director. The annual equity award is in the form of deferred stock units that vest on the earlier of one year after the date of the award or on the date of the next Annual Meeting of stockholders, and must be held for as long as the director serves on the Board. The units accrue dividends, which are reinvested in additional deferred stock units. For 2016, this award of deferred stock units was granted shortly after the 2016 Annual Meeting for directors elected or re-elected at such meeting and, similarly, for 2017, this award will be granted shortly after the 2017 Annual Meeting for directors elected or re-elected at such meeting.

For 2016, our independent directors received an annual cash retainer of $110,000, payable in quarterly installments in advance. In addition, the chair of the HRC Committee received an annual cash retainer of $25,000, the chairs of the Audit Committee and the Risk Committee each received an annual cash retainer of $30,000, the chairs of all other committees each received an annual cash retainer of $20,000, each member of the Audit Committee and the Risk Committee received an annual membership fee of $10,000, and our Lead Director received an annual cash retainer of $50,000.

In addition, under our Corporate Governance Guidelines, by the fifth anniversary of their service on the Board, directors are required to own a number of shares of our common stock with a market value of at least five times the annual cash retainer of $110,000. We believe that our independent director compensation is consistent with current market practice, recognizes the critical role that our directors play in effectively managing the company and responding to stockholders, regulators and other key stakeholders, and will assist us in attracting and retaining highly qualified candidates. In the case of Mr. Garden, the CG&N Committee determined that holdings of our securities by Trian (other than hedged or pledged securities) shall be deemed to be beneficially owned by Mr. Garden for purposes of this stock ownership requirement, given his relationship with Trian and that he transfers to Trian, or holds for the benefit of Trian, his security holdings.

Our directors are not permitted to hedge, pledge or transfer any of their deferred stock units and are subject a robust anti-hedging policy as described in further detail under "Compensation Discussion and Analysis — Anti-Hedging Policy" on page 55 below. With the exception of those securities deemed to be beneficially owned by Mr. Garden by virtue of his relationship with Trian, this policy prohibits our directors from engaging in certain transactions involving our securities and requires directors to pre-clear any transaction in company stock or derivative securities with our legal department (including gifts, pledges and other similar transactions).

In the merger we assumed the Deferred Compensation Plan for Non-Employee Directors of The Bank of New York (the "Bank of New York Directors Plan") and the Mellon Elective Deferred Compensation Plan for Directors (the "Mellon Directors Plan"). Under the Bank of New York Directors Plan, participating legacy The Bank of New York directors continued to defer receipt of all or part of their annual retainer and committee fees earned through 2007. Under the Mellon Directors Plan, participating legacy Mellon directors continued to defer receipt of all or part of their annual retainer and fees earned through 2007. Both plans are nonqualified plans, and neither plan is funded.

Although the Bank of New York Directors Plan and the Mellon Directors Plan continue to exist, all new deferrals of director compensation by any of the independent directors have been made under the Director Deferred Compensation Plan, which was adopted effective as of January 1, 2008. Under this plan, an independent director can direct all or a portion of his or her annual retainer or other fees into either (1) variable funds, credited with gains or losses that mirror market performance of market style funds or (2) the company's phantom stock.

Director Compensation Table

The following table provides information concerning the compensation of each independent director who served in 2016. Mr. Hassell did not receive any compensation for his service as a director. Mr. Garden has advised us that, pursuant to his arrangement with Trian, he transfers to Trian, or holds for the benefit of Trian, all director compensation paid to him.

Name	Fees Earned or Paid in Cash($)	Stock Awards ($)(4)	Change in Pension Value and Nonqualified Deferred Compensation Earnings(5)	All Other Compensation($)(6)	Total ($)
Linda Z. Cook(1)	$10,321	$—	$—	$—	$10,321
Nicholas M. Donofrio(2)	$149,000	$129,996	$—	$1,014	$280,010
Joseph J. Echevarria(2)	$196,500	$129,996	$—	$—	$326,496
Edward P. Garden	$138,750	$129,996	$—	$—	$268,746
Jeffrey A. Goldstein(2)	$140,000	$129,996	$—	$—	$269,996
John M. Hinshaw(2)	$134,000	$129,996	$—	$—	$263,996
Edmund F. "Ted" Kelly	$155,400	$129,996	$—	$—	$285,396
Richard J. Kogan(3)	$37,500	$—	$—	$—	$37,500
John A. Luke, Jr.	$120,000	$129,996	$—	$—	$249,996
Jennifer B. Morgan	$10,321	$—	$—	$—	$10,321
Mark A. Nordenberg	$143,600	$129,996	$4,483	$3,785	$281,864
Catherine A. Rein	$120,000	$129,996	$—	$2,184	$252,180
Elizabeth E. Robinson	$30,019	$—	$—	$—	$30,019
William C. Richardson(3)	$44,150	$—	$—	$477	$44,627
Samuel C. Scott III	$141,250	$129,996	$—	$554	$271,800
Wesley W. von Schack(2)(3)	$64,000	$—	$51,744	$5,673	$121,417

(1) Each of Mses. Cook and Morgan was appointed as a director effective December 1, 2016. Ms. Robinson was appointed as a director effective October 3, 2016.

(2) Elected to defer all or part of cash compensation in the Director Deferred Compensation Plan.

(3) Mr. Kogan and Dr. Richardson did not stand for re-election as a director at our 2016 Annual Meeting. Mr. von Schack resigned effective following our 2016 Annual Meeting.

(4) Amount shown represents the aggregate grant date fair value computed in accordance with Financial Accounting Standards Board's Accounting Standards Codification (or "FASB ASC") 718 Compensation-Stock Compensation for 3,166 deferred stock units granted to each independent director in April 2016, using the valuation methodology for equity awards set forth in note 15 to the consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2016. As of December 31, 2016, each of Messrs. Donofrio, Echevarria, Garden, Goldstein, Hinshaw, Kelly, Luke, Nordenberg and Scott and Ms. Rein owned 3,208 unvested deferred stock units.

(5) The amounts disclosed in this column for Messrs. Nordenberg and Mr. von Schack represent the sum of the portion of interest accrued (but not currently paid or payable) on deferred compensation above 120% of the applicable federal long-term rate at the maximum rate payable under the Mellon Directors Plan. Under the Mellon Directors Plan, deferred amounts receive earnings based on (i) the declared rate, reflecting the return on the 120-month rolling average of the 10-year T-Note rate enhanced based on years of service and compounded annually, (ii) variable funds, which are credited with gains or losses that "mirror" the market performance of market-style funds or (iii) the company's phantom stock. The fully enhanced declared rate for 2016 was 4.31%. The present value of Ms. Rein's accumulated pension benefit under The Bank of New York Retirement Plan for Non-Employee Directors decreased by $5,640. Ms. Rein is the only current director who participates in this plan. Participation in this plan was frozen as to participants and benefit accruals as of May 11, 1999.

(6) The amounts disclosed for Messrs. Donofrio, Richards and Scott and Ms. Rein reflect the amount of a 5% discount on purchases of phantom stock when dividend equivalents are reinvested under the Bank of New York Directors Plan. The amounts disclosed for Messrs. Nordenberg and von Schack reflect the estimated cost of the legacy Mellon Directors' Charitable Giving Program, which remains in effect for them and certain other legacy Mellon directors. Upon such legacy Mellon director's death, the company will make an aggregate donation of $250,000 to one or more charitable or educational organizations of the director's choice. The donations are paid in 10 annual installments to each organization.

Quick Reference Guide

Proposal

We highly value dialogue and engagement with our stakeholders, including stockholders, employees, clients and the communities we serve, with respect to our executive compensation program. Consistent with that, and in accordance with SEC rules, we are asking stockholders to approve the following resolution:

> RESOLVED, that the stockholders approve the 2016 compensation of the named executive officers, as disclosed in this proxy statement pursuant to Item 402 of Regulation S-K of the Securities and Exchange Commission (including the Compensation Discussion and Analysis, the compensation tables and other narrative executive compensation disclosures).

Background

- Since our 2009 Annual Meeting, we have provided stockholders with an advisory vote on our executive compensation program each year. We have consistently received strong support for our executive compensation program, with over 97% stockholder approval of our 2015 executive compensation at last year's Annual Meeting, and over 95% approval of our 2014 executive compensation and over 93% approval of our 2013 executive compensation at prior Annual Meetings.
- In order to ensure that we have investor feedback, we have continued our annual investor outreach process in 2016, resulting in our having conversations with investors representing almost 30% of our outstanding shares as well as with proxy advisory firms and other stakeholders.
- Our approach to compensation continues to be designed to directly link pay to performance, balance corporate and individual performance, promote long-term stock ownership and balance risk and reward, while taking into consideration market trends and practices as well as stakeholder feedback to refine our program.

The Board of Directors unanimously recommends that you vote **"FOR" the approval of the 2016 compensation of our named executive officers.**

Voting

Your vote on this resolution is an advisory vote. Although the Board is not required to take any action in response to the stockholder vote, the Board values our stockholders' opinions. As in prior years, the Board intends to evaluate the results of the 2017 vote carefully when making future decisions regarding the compensation of our named executive officers. At our 2011 Annual Meeting, we provided stockholders with an advisory vote with respect to how often the company should hold a say-on-pay vote, and 86% of the votes cast voted in favor of holding such a vote annually. Consistent with the voting results, we have held an advisory vote each year on our executive compensation program. At our 2017 Annual Meeting, in addition to this advisory vote on 2016 compensation, we will hold an advisory vote on say-on-pay vote frequency. For information regarding the advisory vote on say-on-pay vote frequency, see Item 3, on page 72 below.

Introduction

Organization and Key Considerations

Performance (see pages 38 to 39)

- Our 2016 performance builds on our 2015 results with strong expense controls and stockholder-friendly capital allocation leading to double-digit EPS growth, and in addition, we have **shown continued progress towards** the three-year performance goals we set at our Investor Day in October 2014
  - **11% year-over-year growth in operating EPS** with 2016 OEPS at $3.17, 2% above our operating plan of $3.10
  - **Adjusted Return on Tangible Common Equity remained strong** at 21%*
  - **Adjusted Revenue increased 1% year-over-year** (to $15.2 billion, below our operating plan*)
- **Adjusted noninterest expense $282 million better than our operating plan** and lower than 2015*
- 274 basis points of **adjusted operating leverage** in 2016, **exceeding the target** by 174 basis points
- **Adjusted pre-tax operating margin** increased to 33% (vs. 31% in 2015)*
- **Relative stock returns were strong**, with both 3- and 5-year TSR outperforming the median of our peer group and the S&P 500 Financials Index
- **Returned $3.2 billion to stockholders**, with $2.4 billion in common stock repurchases and $778 million in dividends

Compensation of Named Executives (see pages 40 to 51)

- Introduced a "one decision" model for 2016 incentive compensation determinations, rather than having two separate decisions for annual and long-term components, in order to: (1) better align compensation with current year performance, (2) increase upside and downside program leverage and (3) simplify the program to enhance employee understanding of performance objectives
- Shifted the mix of deferred incentive compensation components to increase PSUs, emphasizing performance-based equity over time-vesting equity and **promoting long-term alignment with our stockholders**
- In calculating the incentive for our CEO and other NEOs, the HRC Committee recognized our **strong overall 2016 operating performance**, but exercised its discretion to take into account that a key metric, revenue growth, was below operating plan

Pay Practices (see pages 52 to 58)

- Directly link pay to performance
- Use a balanced approach for determining incentives and promote long-term stock ownership
- Reflect good corporate governance and practices (*e.g.*, no tax gross-ups and no hedging)
- Obtain regular feedback from stockholders on governance and performance matters through annual outreach process

How We Address Risk and Control (see page 59)

- **Review of our risk appetite, practices and employee compensation plans and outcomes**, including sales incentives, by our Chief Risk Officer and the HRC Committee (1) for alignment with sound risk management and (2) to directly link pay to appropriate risk-taking and regulatory compliance
- **Comprehensive recoupment policy** that subjects all equity incentives to 100% forfeiture during, and clawback following, the vesting period; all cash incentives are subject to 100% clawback within three years following the award date
- **Achievement of common equity Tier 1 ratio** on a fully phased-in basis of at least 8.5% calculated under the Advanced Approach as a condition for funding incentives

* For a reconciliation and explanation of these non-GAAP measures, as well as information on the calculation of operating earnings per share and adjusted operating leverage for compensation purposes, see Annex A.

Progress Towards Our Investor Day Goals

	Investor Day Goals Operating Basis: 2015 – 2017[1]		2-Year Progress Towards Our 3-Year Goals
	"Flat" Rate Scenario[2]	"Normalizing" Rate Scenario[3]	2015 – 2016 Performance[4]
Adjusted Revenue Growth	3.5 – 4.5%	6 – 8%	2%
Operating EPS Growth	7 – 9%	12 – 15%	15%
Adjusted Return on Tangible Common Equity	17 – 19%	20 – 22%	21%

1 Compounded annual growth rate for 2015-2017, as announced on October 28, 2014.

2 Assumes (A) "flat" rate scenario NIM of 95-100 bps, (B) operating margin of 28-30% and (C) no deterioration in volatility, volume and short-term interest rates.

3 Assumes (A) "normalizing" rate scenario NIM of 125-150 bps and (B) operating margin of 30-32%.

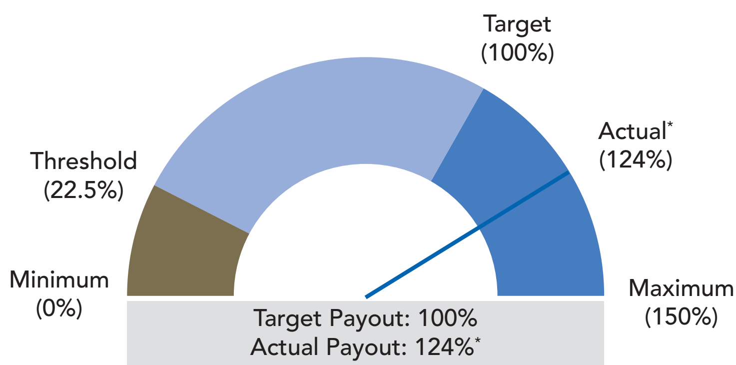
4 For a reconciliation and explanation of these non-GAAP measures, see Annex A. For 2015, adjusted revenue growth was 2%, operating EPS growth was 19% and adjusted return on tangible common equity was 21%. For 2016, adjusted revenue growth was 1%, operating EPS growth was 11% and adjusted return on tangible common equity was 21%.

2016 Program Outcomes

Corporate Component Determination

- Operating EPS and adjusted operating leverage above plan
- Strong multi-year TSR performance relative to peers and the S&P Financials Index
- Strong relative EPS growth compared to peers
- Disciplined expense management
- Revenue above prior year but below plan

CEO Incentive Award Payout

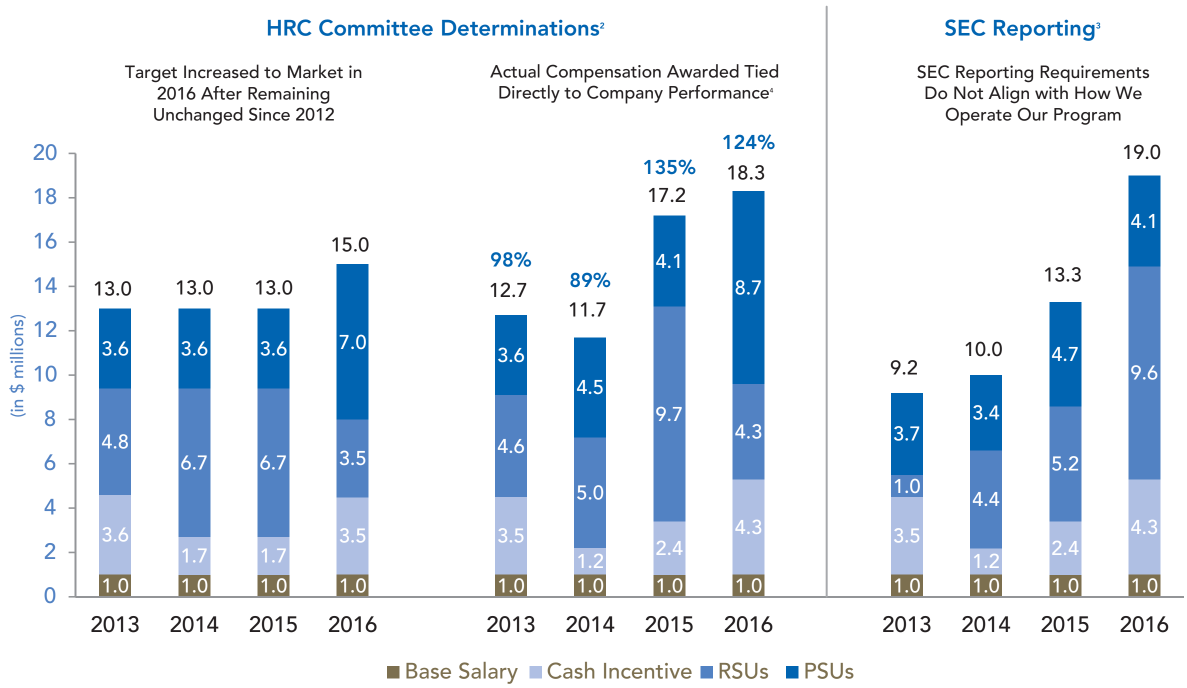


* See pages 44 through 45 for further information regarding the CEO's 2016 incentive award determination.

2016 Program Enhancements

Objectives	Enhancement
Strengthen tie between pay and performance	• Implemented a "one decision" model for incentive compensation determinations, basing 100% of incentive compensation on our "balanced scorecard" — a comprehensive analysis of corporate and individual performance • "One decision" model (1) better aligns compensation with current year performance, (2) increases upside and downside program leverage and (3) simplifies the program to enhance employee understanding of performance objectives • Shifted the mix of deferred incentive compensation components to increase PSUs, emphasizing performance-based equity over time-vesting equity
Limit executive severance benefits	• Amended Executive Severance Plan to reduce maximum severance eligibility from 2 times to 1 times base salary

CEO Total Direct Compensation[1]



1 Total Direct Compensation reflects salary and incentive compensation for the applicable year. Totals may not foot due to rounding.

2 Target and award determinations reflect salary rate for the year and incentive compensation which is awarded after year-end for performance during the year.

3 SEC Reporting reflects salary, stock awards and non-equity incentive plan compensation reported in the Summary Compensation Table set forth on page 60 (and for 2013, reported in the Summary Compensation Table set forth in last year's proxy statement). SEC Reporting does not reflect how our HRC Committee sets targets and determines awards, largely due to the timing requirements for reporting equity-based pay and our previously disclosed 2013 pay-for-performance enhancements.

4 Percentages represent incentive awarded as a percentage of target.

2016 Executive Pay Practice Highlights

What we do:	What we don't do:
✓ Directly link pay to performance	✕ Do not use employment agreements
✓ Require sustained financial performance to earn full amount of long-term awards	✕ No excessive or single-trigger change-in-control or other severance benefits
✓ Promote long-term stock ownership through deferred equity compensation	✕ No excessive perquisites or benefits
✓ Balance risk and reward in compensation	✕ No tax gross-ups
✓ Use a balanced approach for determining incentives with both corporate and individual goals	✕ No hedging or short sales of our stock
✓ Balance incentives for short- and long-term performance with a mix of fixed and variable, cash and equity compensation	✕ No dividend equivalents paid on unearned PSUs or RSUs
✓ Conduct a robust stockholder outreach program	

Performance

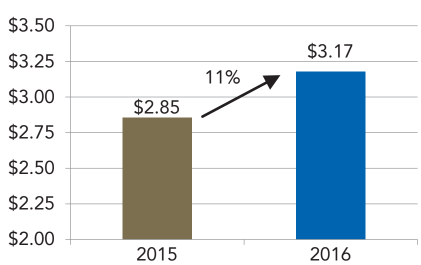
Our operating earnings per share ("OEPS") was $3.17, representing a year-over-year increase of 11% and a 2% increase above our operating plan of $3.10. Combined with our strong OEPS growth last year, compounded OEPS growth for the two-year period from 2015 through 2016 was 15%, which is on track to meet our three-year Investor Day Goals. OEPS reflects GAAP EPS (earnings per diluted common share) as adjusted for significant items, including M&I, litigation and restructuring charges (recovery) in excess of plan. Our GAAP EPS increased year-over-year by 16% from $2.71 to $3.15, which is 5% above our GAAP plan of $2.99, representing a GAAP EPS growth rate at the 93rd percentile relative to our peers.

Our Return on Tangible Common Equity remained strong at 21%*, up 70 basis points year-over-year. Accordingly, our Return on Tangible Common Equity for the two-year period from 2015 through 2016 was also 21%*, which is on track to meet our three-year Investor Day Goals. Our continued focus on implementing expense controls resulted in a year-over-year decrease in expenses of 2%* on an adjusted basis, and our compensation to revenue ratio decreased to 37.6% as compared to 38.4% in 2015.

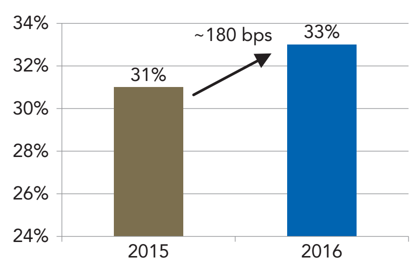
Although 2016 adjusted revenue of $15.2 billion* was below our operating plan of $15.5 billion, it represented a year-over-year increase of 1% and, when coupled with our strong operating expense controls, resulted in net operating income of $3.45 billion* (7% higher than 2015 net operating income and 3% above our operating plan). Our adjusted revenue growth for the two-year period from 2015 through 2016 was 2%.

In 2016, we achieved industry leading operating margins, and our adjusted pre-tax operating margin increased to 33%* (from 31% in 2015). Additionally, we attained positive adjusted operating leverage of 274 basis points.

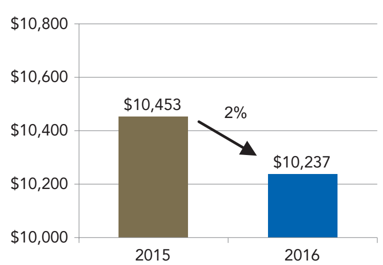
Operating EPS



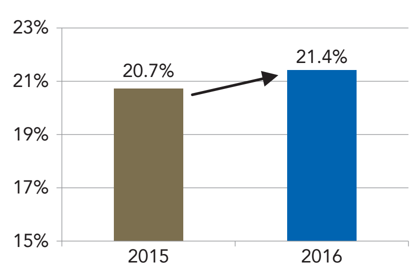
Adjusted Pre-Tax Operating Margin*



Adjusted Noninterest Expense ($ in millions)*



Adjusted Return on Tangible Common Equity*



* For a reconciliation and explanation of these non-GAAP measures, as well as information on the calculation of OEPS and adjusted operating leverage for compensation purposes, see Annex A.

In 2016, we executed on our capital plan and returned nearly $3.2 billion to our stockholders in the form of common dividends and share repurchases. We distributed $778 million of common stock dividends to our stockholders in 2016 and also repurchased 5.4% of outstanding common shares for approximately $2.4 billion in 2016. We have repurchased 20% of common shares over the last five years and our 2016 dividend distributions and share repurchases resulted in a combined payout ratio of about 93%, one of the highest payout ratios in our peer group.

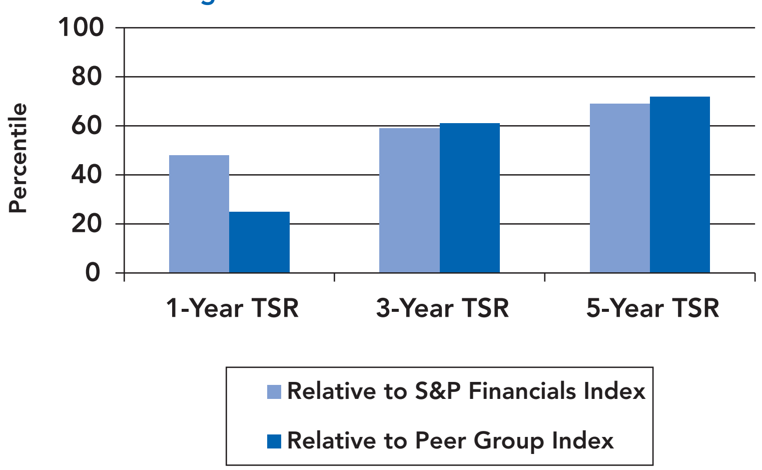
Although our total shareholder return (TSR) was below the median relative to our peer group and the S&P Financials Index as a whole for 2016 (25th and 48th percentiles, respectively), our TSR has outperformed the median of our peer group and the S&P Financials Index over both a three-year period (61st and 59th percentiles, respectively) and a five-year period (72nd and 69th percentiles, respectively).

We continue to maintain our strong capital position and further strengthen our balance sheet, remaining a safe and trusted business partner to our clients. Our estimated common equity Tier 1 ratio, calculated under the the Advanced Approach on a fully-phased in basis, was 9.7%* at December 31, 2016, exceeding the fully phased-in requirements plus applicable buffers of 8.5%.

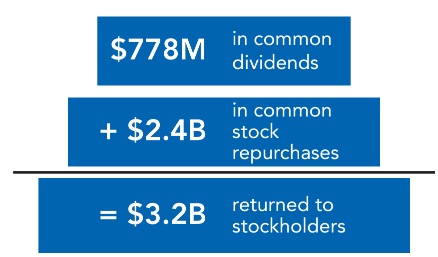
Our strategic priorities for 2017 are designed to leverage our scale and expertise while delivering innovative strategic solutions with strong upside potential. The 2017 strategic priorities include: enhancing the client experience; driving profitable revenue growth; executing our business improvement processes to increase productivity and effectiveness while controlling expenses; being a strong, trusted counterparty by maintaining our safety and soundness, low-risk profile and strong liquidity and capital positions; generating and effectively deploying excess capital; and attracting, developing and retaining top talent. We believe that by executing on these priorities, we will ensure that we are making appropriate investments in our business to sustain long-term growth and value creation for our clients and stockholders.

We are also focused on improving the performance of our investment management business in 2017. In 2016, our investment management business achieved below-plan returns. To improve our performance and drive profitable revenue growth for 2017, we are focused on improving our investment performance, optimizing our distribution and infrastructure, repositioning certain products and developing new ones that are better aligned with evolving market conditions and curtailing initiatives that are not core to our strategic priorities. Our disciplined execution against these areas of focus is helping drive near-term performance, positioning us to attract new asset flows and drive improved margins.

Strong Multi-Year TSR Relative to Peers



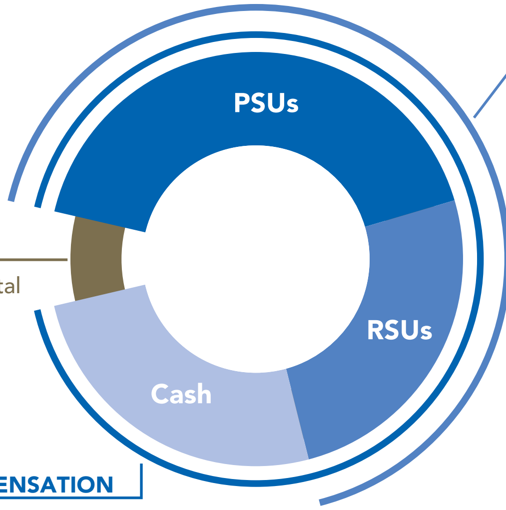
Returned Significant Value to Stockholders



* For a reconciliation and explanation of this non-GAAP measure see Annex A.

Compensation of Named Executives

2016 Target Total Direct Compensation Structure*



DEFERRED EQUITY

- Deferred equity is subject to forfeiture based on annual risk assessments
- Dividend equivalents are paid only at vesting

BASE SALARY

- About 9% of target total direct compensation
- Sole fixed source of cash compensation

INCENTIVE COMPENSATION

- About 91% of target total direct compensation
- Determined at between 0 – 150% of target using a "balanced scorecard"
- As a condition of funding, subject to a threshold Basel III common equity Tier 1 ratio of at least 8.5% on a fully phased-in basis
- 100% of incentive compensation is subject to reduction and clawback

2016 Target Incentive Compensation Elements*

	Cash	RSUs	PSUs
CEO	25%	25%	50%
Other NEOs	30%	25%	45%

RSUs vest in equal installments over three years.

PSUs are earned between 0 – 150% based on the achievement of performance metrics over the 2017 – 2019 performance period.

* Excludes Curtis Y. Arledge, former Vice Chairman and CEO of Investment Management, whose employment with the company terminated effective March 23, 2016. Because compensation determinations for Mr. Arledge were made in connection with his departure, he is not included in this discussion. Mr. Arledge's compensation is described below in "Separation Benefits for Mr. Arledge" on page 57.

2016 Incentive Compensation Determinations

The following table shows the HRC Committee's determinations of the form and amount of 2016 compensation awarded to our named executive officers, as well as corresponding 2014 and 2015 information. The amounts reported in the table differ substantially as reported for 2016 in the Summary Compensation Table set forth on page 60.

Pursuant to SEC rules, the Summary Compensation Table is required to include for a particular year only those equity-based awards granted during that year, rather than awards granted after year-end, even if awarded for services in that year.

We consider the PSU and RSU awards granted during February of a given year to be part of the prior year's compensation. For example, we consider PSU and RSU awards granted in February 2016 to be part of 2015 compensation. The following table depicts the manner in which the HRC Committee has considered named executive officer compensation determinations:

NEO Compensation Determinations[(1)(2)]

Executive	Year	Direct Compensation				Total Direct Compensation	Incentive Awarded as a Percentage of Target
				Deferred Equity			
		Salary	Cash Incentive	RSU Incentive	PSU Incentive		
Gerald L. Hassell *Chairman & CEO*	2016	$1.0	$4.3	$4.3	$8.7	$18.3	124%
	2015	$1.0	$2.4	$9.7	$4.1	$17.2	135%
	2014	$1.0	$1.2	$5.0	$4.5	$11.7	89%
Thomas P. ("Todd") Gibbons *Vice Chairman & CFO*	2016	$0.7	$2.4	$2.0	$3.5	$8.5	124%
	2015	$0.7	$2.4	$3.0	$1.8	$7.9	135%
	2014	$0.7	$1.8	$1.4	$2.0	$5.8	97%
Brian T. Shea *Vice Chairman & CEO of Investment Services*	2016	$0.7	$2.4	$2.0	$3.6	$8.6	125%
	2015	$0.6	$2.5	$3.0	$1.9	$7.9	136%
Karen B. Peetz[(3)] *President*	2016	$0.7	$1.4	$3.2	$0	$5.2	104%
	2015	$0.7	$1.6	$2.0	$1.3	$5.6	114%
	2014	$0.7	$1.7	$1.3	$2.0	$5.7	94%
Mitchell E. Harris *CEO of Investment Management*	2016	$0.7	$1.7	$1.4	$2.6	$6.4	79%

1 Dollar amounts shown in millions. Totals may not foot due to rounding.

2 Our named executives also include Curtis Y. Arledge, former Vice Chairman and CEO of Investment Management. Mr. Arledge's employment with the company terminated effective March 23, 2016. Because his compensation was determined in connection with his departure, he is not included in this table; his compensation is described below in "Separation Benefits for Mr. Arledge" on page 57.

Blue shading represents incentive determined by balanced scorecard results, reflecting the change to a "one decision" model in 2016 to (1) better align compensation with current year performance, (2) increase upside and downside program leverage and (3) simplify the program to enhance employee understanding of performance objectives

3 As previously disclosed, Ms. Peetz retired effective December 31, 2016. In recognition of the fact that Ms. Peetz is no longer able to influence our go-forward performance, the HRC Committee determined to award the deferred equity portion of her 2016 incentive award solely in the form of RSUs (rather than a combination of RSUs and PSUs).

2016 Target Compensation

Name	Salary	Target Incentive	Total Target Direct Compensation
Hassell	$1,000,000	$14,000,000	$15,000,000
Gibbons	$650,000	$6,350,000	$7,000,000
Shea	$650,000	$6,350,000	$7,000,000
Peetz	$650,000	$4,350,000	$5,000,000
Harris	$650,000	$7,350,000	$8,000,000

In the first quarter of each year, the HRC Committee considers competitive data, executive position and level of responsibility and, for executives other than our CEO, our CEO's recommendation, and establishes annual target total direct compensation for each executive. Targets are reviewed annually but only adjusted if determined appropriate by the HRC Committee.

As disclosed last year, after having remained unchanged since 2012, 2016 target incentive compensation was increased for Mr. Hassell by $2 million to position his total target direct compensation in line with that of our peers. Additionally, for 2016, compared to the prior year, total target direct compensation was increased for each of Messrs. Gibbons and Shea by $1 million (including, for Mr. Shea, a salary increase from $600,000 to $650,000), in each case, to better align with their current responsibilities. Total target direct compensation was increased for Mr. Harris by $900,000 (including a salary increase from $600,000 to $650,000) in connection with his promotion to CEO of Investment Management.

2016 Incentive Awards

Starting with our 2016 compensation program, our HRC Committee determined to move to a "one decision" incentive structure to (1) better align compensation with current year performance, (2) increase upside and downside program leverage and (3) simplify the program to enhance employee understanding of performance objectives. Under the "one decision" structure, total incentive compensation is based on a single incentive award decision based on the balanced scorecard results and then delivered in the form of cash, PSUs and RSUs, rather than two separate incentive award decisions — one for annual incentive, delivered in the form of cash and RSUs, and one for long-term incentive, delivered in the form of PSUs. One hundred percent of the total incentive award is conditional upon meeting a minimum funding requirement and subject to reduction or elimination based on a risk assessment.

Minimum Funding Requirement

A common equity Tier 1 ratio of at least 8.5% on a fully phased-in basis was established as a minimum funding requirement for our incentive compensation, with such percentage equal to the regulatory threshold ratio for a well-capitalized bank to which we expect to be held on a fully phased-in basis, including estimated buffers.

Payment of incentive compensation is conditioned upon our meeting this goal. This threshold funding goal was met, with an estimated common equity Tier 1 ratio of 9.7%* at December 31, 2016, calculated under the Advanced Approach on a fully phased-in basis.

Balanced Scorecard

We have used a "balanced scorecard" approach for our incentive compensation determinations since 2009 and have adapted it for our "one decision" 2016 incentive compensation determinations. Our approach is designed to be a comprehensive analysis of corporate and individual performance determined in the discretion of the HRC Committee. Our balanced scorecard provides for the following:

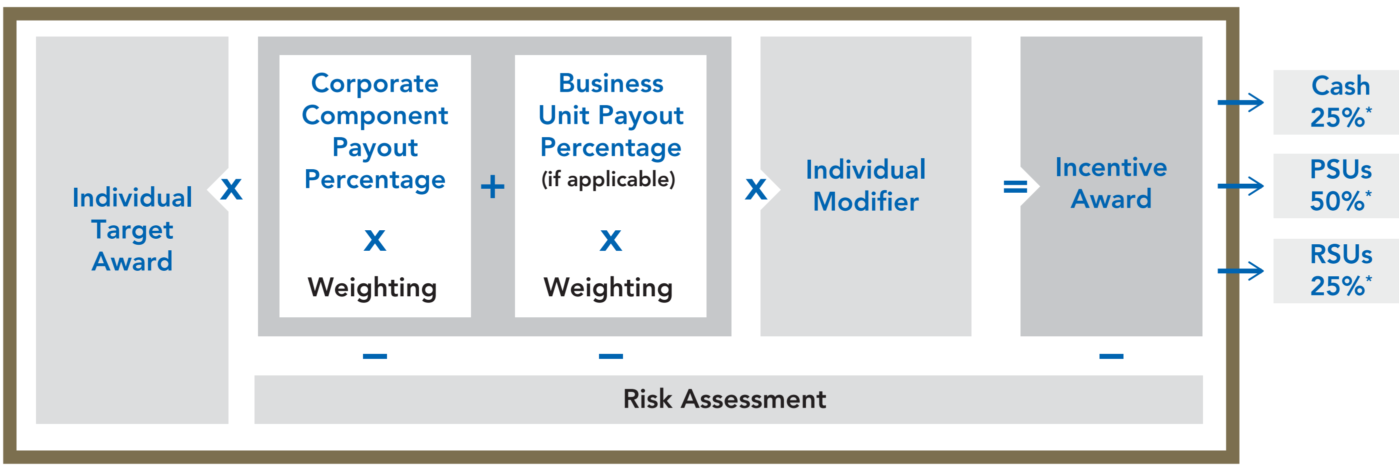
- **Corporate Component.** The corporate component of the balanced scorecard is based on a single set of objective company-wide performance metrics that are designed to drive achievement of near-term business strategies. The HRC Committee establishes the applicable metrics at the start of the performance period and has discretion to consider other factors to obtain a holistic picture of our performance.

* For a reconciliation and explanation of this non-GAAP measure, see Annex A.

- **Individual Component.** The individual component of the balanced scorecard focuses on individual performance and consists of (1) a business unit goal (as applicable) based on pre-tax income of the specific business unit for which the individual is responsible and (2) an individual modifier to recognize and differentiate individual actions and contributions in final pay decisions.

The HRC Committee determines the corporate component payout and the business unit payout, then applies the individual modifier to increase or decrease the total incentive award by up to ±25%. Finally, the HRC Committee has the discretion to reduce an individual's corporate component, individual component and/or total incentive award based on an assessment of the individual's risk profile. Incentive awards, including the effect of the individual modifier, can range from 0% up to 150% of the individual's target award.

As illustrated below, incentive awards are paid out in a combination of cash, PSUs earned between 0 – 150% based on the achievement of performance metrics over a three-year performance period and RSUs deferred over three years. In calculating the number of PSUs and RSUs to grant, the HRC Committee divided the value of PSUs and RSUs awarded by $45.19, the average closing price of our common stock on the NYSE for the 15 trading days from January 13, 2017 through February 3, 2017, to mitigate the impact of short-term volatility in our stock price.



* Percentages reflect incentive award payment to our CEO. For our other named executives, incentive awards are generally paid 30% in cash, 45% in PSUs and 25% in RSUs. As described below, Ms. Peetz's incentive award was paid 30% in cash and 70% in RSUs in light of her retirement on December 31, 2016.

For Messrs. Hassell and Gibbons, the corporate component weighting was 100% due to their roles as the Company's CEO and CFO, respectively. For Ms. Peetz, the corporate component and business unit were weighted 75% and 25%, respectively, due to her role as the Company's President as well as the sizable impact her role has on the investment services business. For Messrs. Shea and Harris, the corporate component and business unit were weighted equally (50% each) due to their roles as the head of our investment services and investment management businesses, respectively.

Corporate Component Payout

The corporate component metrics are reviewed annually to select measures that align with our strategy and are appropriate for measuring annual performance. The same corporate component metrics and goals apply to each named executive officer. In February 2016, the HRC Committee determined to focus management on OEPS and adjusted operating leverage, weighted 75% and 25% respectively. The HRC Committee retains the discretion to consider other factors (including our performance relative to our peers, market conditions and interest rate environment) in assessing the strength of the Company's OEPS and adjusted operating leverage achievements and also retains the discretion to determine the overall corporate component payout.

- **OEPS (weighted 75%).** OEPS is defined as reported earnings per share excluding merger and integration, restructuring, litigation expense and other significant, unusual items added or subtracted at the HRC Committee's discretion. Our 2016 OEPS budget was set at $3.10 and, in February 2016, the HRC Committee established the guidelines below for a range of incentive payouts. These guidelines include the intended upside and downside leverage, which is the amount by which each percentage point difference between our budgeted and actual OEPS is magnified to determine the OEPS earnout portion of the corporate component.

OEPS	Percent of Budget ($3.10)	Earnout Range as a Percent of Target	Intended Leverage
>$ 3.72	>120%	150%	
$3.10 – $3.72	100% – 120%	100% – 150%	3:1
$2.64 – $3.10	85% – 100%	40% – 110%	4:1
<$2.64	<85%	0%	

- **Adjusted Operating Leverage (weighted 25%).** Adjusted operating leverage is defined as the percentage change in operating revenue growth less operating expense growth for the same period (with revenue and expense items calculated on the same basis as the calculations for OEPS). In February 2016, the HRC Committee determined that the adjusted operating leverage portion of the corporate component would be earned at 100% if adjusted operating leverage is equal to, or more than, 100 basis points and at 0% if it is less than 100 basis points. There is no upside leverage associated with this metric, as the adjusted operating leverage portion cannot be earned above 100%.

Adjusted Operating Leverage	Earnout as a Percent of Target
≥100 bps	100%
<100 bps	0%

HRC Committee Determinations. Our actual 2016 OEPS was $3.17 and 2.3% above our operating budget, resulting in an earnout range of 100% to 150% for the OEPS portion of the corporate component per the guidelines shown above. The HRC Committee determined that an earnout of 106.9% in respect of the OEPS portion of the corporate component was appropriate, which reflected an earnout of 3 percentage points above target for each percentage point by which actual 2016 OEPS exceeded our operating budget (consistent with our intended leverage shown above).

For 2016, our adjusted operating leverage was 274 basis points, which exceeded the 100 basis point target described above. The adjusted operating leverage portion of the corporate component was therefore earned at 100%.

The OEPS earnout of 106.9%, weighted 75% of the total corporate component payout, and the adjusted operating leverage earnout of 100%, weighted 25% of the total corporate component payout, yielded a corporate component payout of 105.2%, based solely on the objective performance metrics. The HRC Committee then exercised its discretion to review the following factors with respect to our 2016 performance:

- TSR results relative to peers over a 1, 3 and 5-year period were at the 25th, 61st and 72nd percentiles, respectively. When compared to the S&P Financials Index, our relative TSR results were directionally similar, ranking at the 48th, 59th and 69th percentiles over a 1, 3 and 5-year period, respectively.
- EPS growth results relative to peers were at the 92nd percentile (at the time the HRC Committee made its determination, which excluded Prudential Financial, Inc.).
- Expenses were under control, decreasing by 3% compared to 2015.
- Adjusted revenue grew 1% over the prior year, below plan by 1.8 percentage points.

Notwithstanding our strong multi-year TSR and EPS growth performance relative to peers and our disciplined expense management, management recommended and the HRC Committee agreed to limit the corporate component payout to 103% to reflect our below-plan revenue and the Company's emphasis on quality growth based on earnings and revenue.

Objective Performance Metrics						
	Threshold	Target	Maximum	Earnout Range Based on Performance (as % of target)	Weight	Intended Leverage
OEPS	**$2.64**	**$3.10**	**$3.72**	100% – 150%	75%	3:1
Adjusted Operating Leverage		**100 bps**		100%	25%	
2016 Performance		**$3.17**	**274 bps**			
Payout Based on Objective Performance Metrics:						**105.2%**
Discretionary Factors						
• Strong multi-year TSR performance relative to peers and the S&P Financials Index						
• Strong relative EPS growth compared to peers						
• Disciplined expense management						
• Revenue above prior year but below plan						
Actual Corporate Component Payout:						**103%**

Individual Component (Business Unit Payout and Individual Modifier)

In February 2016, the HRC Committee approved the pre-tax income goal for each business unit and determined to apply similar payout range guidelines and the same intended leverage ratios as those applicable to the OEPS portion of the corporate component, as set forth above. At that time, the HRC Committee also approved individual modifier strategic and leadership objectives for our CEO, after discussion with the other independent directors, and for our other named executive officers, which were set by our CEO after discussion with the HRC Committee. None of the individual strategic and leadership objectives had any specific weighting; the objectives are intended to be used, together with other information the HRC Committee determines relevant, to develop a holistic evaluation of individual performance.

In the first quarter of 2017, the HRC Committee evaluated 2016 business unit performance and determined each named executive officer's individual modifier. For Mr. Hassell, the HRC Committee reviewed his performance self-assessment, obtained feedback from each independent director, and finalized its decision after reporting its preliminary evaluation to the other independent directors and soliciting their input. For each of the other named executive officers, the HRC Committee reviewed his or her performance self-assessment, considered Mr. Hassell's recommendation and summary of performance, and finalized its decision after soliciting input from the other independent directors.

In determining the individual component for Mr. Hassell, the HRC Committee considered the following key results:

- **Strategic:** met or exceeded key financial metric targets; developed and executed corporate strategies to achieve our Investor Day Goals; evaluated and developed strategic vision for investment services and investment management businesses and successfully led risk management initiatives
- **Leadership:** continued to enhance our performance-based culture; continued to build a robust and diverse leadership team and succession pipeline and assisted in building a robust and diverse Board; made a number of strategic and diverse hires and demonstrated commitment to providing superior client experience as a driver of new business

Based on the above strategic and leadership results, the HRC Committee approved an individual modifier of 120% for Mr. Hassell.

[103% corporate component payout x 100% weighting] x 120% individual modifier = 124% of target earned

The HRC Committee then granted Mr. Hassell 25% of his total incentive award in the form of cash, 50% in the form of PSUs and 25% in the form of RSUs.

In determining the individual component for Mr. Gibbons, the HRC Committee considered the following key results:

- **Strategic:** achieved targets for key components of our operating plan; implemented process to assist business partners deliver run-rate improvements; assisted in the strategic review and restructuring of several businesses and executed use cases to explore benefits of potential fintech innovations
- **Leadership:** drove initiatives to increase employee engagement in support of company-wide performance initiatives; advanced our diversity and inclusion agenda and continued to evolve business line financial reporting and analysis and risk management initiatives

Based on the above strategic and leadership results, the HRC Committee approved an individual modifier of 120% for Mr. Gibbons.

[103% corporate component payout x 100% weighting] x 120% individual modifier = 124% of target earned

The HRC Committee then granted Mr. Gibbons 30% of his total incentive award in the form of cash, 45% in the form of PSUs and 25% in the form of RSUs.

In determining the individual component for Mr. Shea, the HRC Committee considered the following key results:

- **Business Unit Payout:** Our 2016 budgeted pre-tax income for the investment services business unit was $3.790 billion and, in February 2016, the HRC Committee established the guidelines below:

Percent of Budget ($3.790 billion)	Payout Range as a Percent of Target
<85%	0%
85% – 100%	40% – 100%
100% – 120%	85% – 150%
>120%	150%

  Our actual achievement was $3.933 billion, representing 104% of budget, resulting in a payout range of 85% to 150%. The HRC Committee determined that a business unit payout percentage of 106% was appropriate.

- **Strategic:** exceeded business improvement process target; executed multiple strategic investment initiatives and drove improvements to bolster growth; sustained business line performance; significantly advanced technology platforms and agenda and completed a number of major systems conversions

- **Leadership:** implemented talent management tools and processes to support company-wide development initiatives; advanced our diversity and inclusion agenda; advanced our risk management agenda and attracted and developed key leaders for several businesses

Based on the above strategic and leadership results, the HRC Committee approved an individual modifier of 120% for Mr. Shea.

[103% corporate component payout × 50% weighting + 106% business unit payout × 50% weighting] × 120% individual modifier = 125% of target earned

The HRC Committee then granted Mr. Shea 30% of his total incentive award in the form of cash, 45% in the form of PSUs and 25% in the form of RSUs.

In determining the individual component for Ms. Peetz, the HRC Committee considered the following key results:

- **Business Unit Payout:** as described above, the HRC Committee determined that a business unit payout percentage of 106% was appropriate for the investment services business unit

- **Strategic:** improved competitive positioning relative to peers through development of change initiative and training program and enhanced communications with employees and clients; transformed treasury services team to position group for innovation and successfully oversaw critical regulatory deliverables

- **Leadership:** drove initiatives to increase employee engagement in support of company-wide performance initiatives; advanced our diversity and inclusion agenda and outperformed relative to peers with respect to corporate social responsibility

Based on the above strategic and leadership results, the HRC Committee approved an individual modifier of 100% for Ms. Peetz.

[103% corporate component payout × 75% weighting + 106% business unit payout × 25% weighting] × 100% individual modifier = 104% of target earned

The HRC Committee then granted Ms. Peetz 30% of her total incentive award in the form of cash and 70% in the form of RSUs. The HRC Committee determined not to grant Ms. Peetz any PSUs because she retired on December 31, 2016 and consequently will not impact our performance going forward.

In determining the individual component for Mr. Harris, the HRC Committee considered the following key results:

- **Business Unit Payout:** Our 2016 budgeted pre-tax income for the investment management business unit was $1.156 billion and, in February 2016, the HRC Committee established the guidelines below:

Percent of Budget ($1.156 billion)	Payout Range as a Percent of Target
<85%	0%
85% – 100%	40% – 100%
100% – 120%	85% – 150%
>120%	150%

  Our actual achievement was $1.053 billion, representing 91% of budget, resulting in a payout range of 40% to 100%. The HRC Committee determined that a business unit payout percentage of 72% was appropriate.

- **Strategic:**
  - achieved net margin growth in a margin contraction environment; created investment performance standards for boutique investment capabilities; exceeded target for customer contacts; restructured and/or shut down a number of underperforming businesses and reduced structural costs
  - achieved below-plan returns on strategic initiatives and underperformed relative to peers with respect to revenue growth and growth of assets under management
- **Leadership:** realigned senior leadership team; implemented talent management tools and processes to support company-wide development initiatives and advanced our diversity and inclusion agenda

Based on the above strategic and leadership results, the HRC Committee approved an individual modifier of 90% for Mr. Harris.

[103% corporate component payout x 50% weighting + 72% business unit payout x 50% weighting] x 90% individual modifier = 79% of target earned

The HRC Committee then granted Mr. Harris 30% of his total incentive award in the form of cash, 45% in the form of PSUs and 25% in the form of RSUs.

Risk Assessment

We adopted the use of a risk scorecard in 2011 to formally connect compensation and risk-taking. The risk scorecard takes into account liquidity, operational, reputational, market, credit and technology risk categories by measuring:

- maintenance of an adequate compliance program, including adhering to our compliance rules and programs;
- protection of the company's reputation, including reviewing our business practices to ensure that they comply with laws, regulations and policies, and that business decisions are free from actual or perceived conflicts;
- management of operational risk, including managing operational losses and maintaining proper controls;
- compliance with all applicable credit, market and liquidity risk limits, including understanding and monitoring risks associated with relevant businesses and new client acceptance, as well as appropriately resolving or escalating risk issues to minimize losses; and
- meeting Internal Audit expectations, including establishing an appropriate governance culture, achieving acceptable audit results and remediating control issues in a timely manner.

The HRC Committee's review of the risk scorecard results for each named executive was taken into account by the HRC Committee in determining each of the corporate and individual components of the balanced scorecard. The HRC Committee has the ability to reduce or fully eliminate the incentive award if the risk scorecard result is significantly below expectation. No downward adjustments were made for 2016.

Reduction or Forfeiture in Certain Circumstances

The company may cancel all or any portion of the RSUs and PSUs that constitute a portion of our named executives' incentive award if, directly or indirectly, the named executive (1) engages, or is discovered to have engaged, in conduct that is materially adverse to the company's interests during his or her employment, (2) violates certain non-solicitation or non-competition restrictions during his or her employment and for a certain period thereafter, (3) violates any post-termination obligation or duties owed to the company or (4) has received, or may receive, compensation that is required to be forfeited and/or repaid to the company pursuant to applicable regulatory requirements. In addition, in the event that the named executive's risk scorecard rating is lower than acceptable risk tolerance, any unvested RSUs and PSUs will be subject to review and potential forfeiture, as determined by our HRC Committee.

Outstanding PSUs

In 2013, we reintroduced PSUs as part of our incentive compensation program. The PSUs are granted each year based on prior-year performance. We consider PSUs granted during a given year to be part of the prior year's compensation; for example, we consider the February 2016 PSU grant to be part of 2015 earned compensation. Any earned PSUs cliff vest after the end of three-year performance periods based on continued service with certain exceptions. The PSUs granted in 2014 and 2015 are earned between 0 – 125% and the PSUs granted in 2016 are earned based between 0 – 150%, in each case based on the achievement of performance metrics. Granting awards annually with overlapping, multi-year performance periods allows the HRC Committee to annually review and update, as appropriate, the structure and performance metrics that we use in our PSU program.

February 2016 PSUs

As discussed in last year's proxy statement, in February 2016, the HRC Committee granted PSUs to each of our then-current named executives based on target values, as adjusted based on prior-year risk scorecard results and strategic milestones. The February 2016 PSUs are earned based on 2018 OEPS, with the potential of a negative risk modifier should risk-weighted assets ("RWA") grow at an unacceptable rate.

In particular, to emphasize our focus on pay for performance, the HRC Committee pre-established two sets of 2018 OEPS targets (one set for a "normalizing" scenario, where the daily average Fed target rate is greater than or equal to 100 basis points in 2018, and one set for an alternative "flat" scenario):

2018 OEPS in a "Flat" Rate Scenario	2018 OEPS in a "Normalizing" Rate Scenario	Payout Range
> $3.57	> $3.92	150%
$3.47 – $3.57	$3.78 – $3.92	100% – 150%
$3.47	$3.78	100%
$3.37 – $3.47	$3.63 – $3.78	50% – 100%
< $3.37	< $3.63	0%

The actual percentage of PSUs that are earned will be determined in the HRC Committee's discretion within the payout range set forth above. In addition, the percentage may be adjusted downward by a risk-based modifier should risk-weighted assets grow at an unacceptable rate during the three-year performance period as set forth below:

Compound Annual Growth Rate of RWA	Risk-Based Modifier
> 11%	0% – 75%
11% – 9%	75% – 100%
< 9%	100%

For 2016, our OEPS was $3.17 and the one-year growth rate of our RWA was 0.43%.

Our outstanding PSU awards are illustrated below:

	2014	2015	2016	2017	2018	2019	
February 2014 PSU Award	**Earned at 67% based on RRWA of 1.57% against a target of 2.0%**	**Earned at 87% based on RRWA of 1.83% against a target of 2.0%**	**Earned at 99% based on RRWA of 1.98% against a target of 2.0%**	cliff vested in 2017			
February 2015 PSU Award		**OEPS, with the potential of a negative risk modifier should risk-weighted assets grow at an unacceptable rate**			cliff vests in 2018 based on continued service		
February 2016 PSU Award			**OEPS, with the potential of a negative risk modifier should risk-weighted assets grow at an unacceptable rate**			cliff vests in 2019 based on continued service	
February 2017 PSU Award				**OEPS, with the potential of a negative risk modifier should risk-weighted assets grow at an unacceptable rate**			cliff vests in 2020 based on continued service

For the February 2014 PSU award, PSUs were earned in separate tranches over each year of the performance period based on return on risk-weighted assets ("RRWA"). RRWA was generally defined as net income available to common stockholders, adjusted for capital charges on acquisitions as incurred, divided by the simple average of quarter-end risk-weighted assets (estimated per a fully phased-in Basel III, based on assumptions and approaches existing at the commencement of the performance period as reported in our reports on Forms 10-Q and 10-K). For awards beginning in February 2015, RWA is generally defined as, for each fiscal year, the simple average of the preceding four quarter-end risk-weighted assets (estimated on a fully phased-in basis in Basel III using, for PSUs granted in 2015, the Advanced Approach, for PSUs granted in 2016, the higher of the Advanced or Standardized Approach and for PSUs granted in 2017, the Standardized Approach) based on existing assumptions at the commencement of the performance period and as reported in the company's SEC filings.

Other Compensation and Benefits Elements

Retirement and Deferred Compensation Plans

After the merger in 2007, we assumed certain existing arrangements affecting the provision of retirement benefits to our named executives, maintaining qualified and non-qualified defined benefit and defined contribution plans in which eligible employees, including our named executives, may participate. Our named executives are eligible to participate in deferred compensation plans, which enable eligible employees to defer the payment of taxes on a portion of their compensation until a later date. To limit pension accruals, we froze all accruals under the Legacy BNY SERP as of December 31, 2014 and under our other U.S. defined benefit pension plans (including the BNY Mellon Tax-Qualified Retirement Plan and the Legacy BNY Excess Plan) as of June 30, 2015. For a description of these plans and our named executive officers' participation therein, see "Pension Benefits" and "Nonqualified Deferred Compensation" below.

Perquisites

Our named executives are eligible to participate in company-wide benefit plans. In addition, we provide certain benefits, consistent with market practices, that are reportable under SEC rules as perquisites (see footnotes to the Summary Compensation Table below). The following perquisites were provided in 2016 and are substantially unchanged from 2015:

Car and Driver	Each named executive has access to a pool of company cars and drivers for security purposes and to allow for more effective use of travel time. The pool is also available for use by our other executives.
Personal Use of Corporate Aircraft	Company aircraft are intended to be used by employees, directors and authorized guests primarily for business purposes. Our policy provides that the CEO should make prudent use of the company aircraft for security purposes and to make the most efficient use of his time. The HRC Committee receives an aircraft usage report on a semi-annual basis.
Charitable Gifts Match	We maintain a matching gift program for gifts to eligible charities. All of our employees are eligible to participate in the matching gift program, and our named executives are eligible for an additional match of up to $30,000.

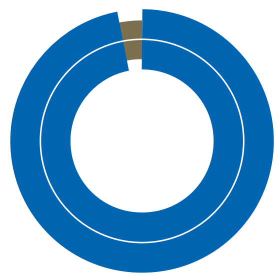
In addition to the perquisites described above, certain named executive officers are covered by legacy life insurance plans assumed in the merger.

Pay Practices

Stakeholder Engagement

In determining our governance practices, we believe it is important to consider feedback and input from our stakeholders, including stockholders, employees, clients and the communities we serve.

We have consistently received strong support for our executive compensation program, with over 97% stockholder approval of the say-on-pay proposal at our 2016 Annual Meeting, over 95% approval at our 2015 Annual Meeting and over 93% approval at our 2014 Annual Meeting. We continue to actively engage with our stakeholders throughout the year (including webcasting our Annual Meeting to allow broader stockholder participation).



Over 97% of stockholders approved our 2016 say-on-pay proposal

In total, in advance of our 2017 Annual Meeting and as a result of our annual outreach process, we invited feedback from investors representing about 45% of our outstanding shares and reached investors representing almost 30% of our outstanding shares, and we actively engaged with proxy advisory firms and other stakeholders on governance and performance matters. We further engaged stockholders and analysts at industry conferences, in meetings at our offices or at our stockholders' offices, through conference calls and at our Investor Day conference held on October 28, 2014. We also regularly engage in direct meetings with local leaders and advocacy groups in our communities as well as with our employees.

Changes for 2017

We are focused on driving quality growth based on earnings and revenue, which we believe is the key to sustainable progress. Having achieved industry leading operating margins, we want to ensure that we are making appropriate investments in our businesses to sustain long-term growth and value creation for our clients and stockholders. Although we are still committed to maintaining our culture of expense control, our HRC Committee eliminated operating leverage from the corporate component of the balanced scorecard to make OEPS the primary performance metric for 2017. In addition to reinforcing our focus on topline growth, this adjustment to the corporate component more closely ties pay to performance by increasing the upside and downside leverage of our compensation program. Under our balanced scorecard for prior years, adjusted operating leverage, weighted 25% of the overall corporate component, was earned at either 100% or 0%, but was not itself subject to upside or downside adjustment. By eliminating the operating leverage component and increasing the weighting of the OEPS component, an incremental 25% of the corporate component is now subject to upward adjustment (in the case of above-target performance) and downward adjustment (in the case of below-target performance). The HRC Committee retains discretion to determine the corporate component payout and to consider other factors (including performance relative to our peers) in assessing the strength of the Company's OEPS results.

Key Compensation Practices

To further our commitment to good corporate governance practices and mitigation of inappropriate risk-taking, our 2016 compensation program for the named executives has the following features:

Directly link pay to performance	• Incentive compensation is based on balanced scorecard results and comprises 91% of target total direct compensation • Incentive compensation deferred in the form of PSUs comprises 50% of target total incentive compensation for our CEO and 45% for other continuing named executives • Incentive compensation deferred in the form of RSUs comprises 25% of target total incentive compensation for all our continuing named executives
Balanced approach for incentive compensation	• Incentive compensation earned based on a combination of corporate and individual goals • Corporate component based on OEPS (weighted 75%) and operating leverage (weighted 25%) • Business unit goals use quantitative financial measures to establish a payout range • Individual modifier allows the HRC Committee to recognize and differentiate individual contributions
Promote long-term stock ownership	• Deferred equity (PSUs and RSUs) as a percentage of total incentive compensation: 75% for our CEO and 70% for our other named executives • Earned PSUs cliff vest after the end of a three-year performance period, and RSUs vest in equal installments over three years • Our CEO must acquire and retain company stock equal to six times base salary, and other named executives must acquire and retain stock equal to four times base salary, plus an additional amount equal to one times base salary to provide a cushion against stock volatility
What we don't do	• No excessive or single-trigger change-in-control or other severance benefits • No tax gross-ups • No hedging or short sales of our stock • No stock option grants

HRC Committee Role and Process

In the first quarter of 2016, for each named executive, the HRC Committee approved base salary levels; established target amounts for the 2016 incentive award to be earned or granted, as applicable, in the first quarter of 2017 based on 2016 performance; and granted PSUs based on targets established in 2015, following consideration and adjustment based on prior-year risk scorecard results and strategic milestones.

In setting 2016 compensation targets, the HRC Committee, assisted by its independent compensation consultant, considered a variety of factors over multiple meetings, including our financial performance and data concerning peer companies' executive compensation programs. Factors were considered holistically, and no one factor had an assigned or specific quantifiable impact on the target compensation levels established by the HRC Committee.

During the year, the HRC Committee received regular updates on performance forecasts versus performance goals, regulatory and legislative developments and other relevant matters. In the first quarter of 2017, the HRC Committee evaluated 2016 corporate performance, using a combination of financial and qualitative measures, as well as each named executive's individual performance to make 2016 incentive compensation determinations under the "one decision" model as described above.

The HRC Committee also provided each named executive with incentive compensation targets for their 2017 incentive award, with the actual award amount to be determined in the first quarter of 2018 based on prior-year performance.

With respect to our CEO, the HRC Committee reports its preliminary conclusions and compensation decisions, and information on the process used by the HRC Committee, to the other independent members of our Board in executive session and solicits their input prior to finalizing determinations. With respect to our other named executive officers, the HRC Committee also advises and discusses with the other independent directors compensation decisions and the process used by the HRC Committee.

Role of Compensation Consultants

Since February 2014, the HRC Committee has retained Compensation Advisory Partners LLC, which we refer to as "CAP," as its independent compensation consultant. CAP regularly attends HRC Committee meetings and assists the committee in its analysis and evaluation of compensation matters related to our executive officers. For more information on CAP, see page 29.

Benchmarking

Peer Group

The HRC Committee and our management use a peer group to provide a basis for assessing relative company performance and to provide a competitive reference for pay levels and practices. In evaluating and selecting companies for inclusion in the peer group, the HRC Committee targets complex financial companies with which we typically compete for executive talent and business. In particular, the HRC Committee selected these companies based on:

- mix of businesses (*e.g.*, asset management, asset servicing and clearing services) and other financial services companies with similar business models that operate in a similar regulatory environment;
- relative size in terms of revenue, market capitalization and assets under management, as well as total assets and net income;
- position as competitors for customers and clients, executive talent and investment capital; and
- global presence.

BlackRock, Inc.
The Charles Schwab Corporation
Franklin Resources, Inc.
JPMorgan Chase & Co.
Morgan Stanley
Northern Trust Corporation
The PNC Financial Services Group, Inc.
Prudential Financial, Inc.
State Street Corporation
U.S. Bancorp
Wells Fargo & Company

The 2016 peer group selected by the HRC Committee was unchanged from 2015.

Compensation Benchmarking

Compensation information is collected from the peer group proxy statements to provide data for the HRC Committee to assess the competitiveness of targeted and actual compensation. Peer group information is also used to analyze market trends and compensation program practices. For certain named executive officers, data relating to the peer group is supplemented with industry data from surveys conducted by national compensation consulting firms and other data to assess the compensation levels and practices in the businesses and markets in which we compete for executive talent. Peer group data and other information provided to the HRC Committee by CAP was used by the HRC Committee as a consideration in setting 2016 target compensation levels for our named executives.

Financial Performance Benchmarking

The peer group is also used to provide the HRC Committee with relative financial performance assessments. The metrics reviewed include revenue growth, EPS growth, operating leverage, return on equity, return on tangible common equity as well as TSR on a one- and three-year basis. This analysis provides additional context for the HRC Committee in their review of compensation outcomes as well as compensation program design. When making annual compensation determinations for prior year performance, the HRC Committee reviews additional relative performance metrics as part of their considerations, as discussed above on pages 44 to 45.

Peer group data reviewed by the HRC Committee was considered holistically, and was used as an input, but not the sole input, of their compensation decisions.

Stock Ownership Guidelines

Under our stock ownership guidelines, each named executive is required to own a number of shares of our common stock with a value equal to a multiple of base salary within five years of becoming a member of our Executive Committee. The officer cannot sell or transfer to a third party any shares until he or she achieves the ownership guideline.

	Stock Ownership Requirement	Stock Retention Requirement*
CEO	Must retain shares of our common stock equal to six times base salary	50% of net after tax shares must be held until age 60
Other NEOs	Must retain shares of our common stock equal to four times base salary	50% of net after tax shares must be held for one year after vesting date

* Applies to shares received from the vesting of RSUs, PSUs, restricted stock and other long-term equity awards granted after appointment to the Executive Committee and that were unvested as of August 2012.

Our CEO is subject to a 6-times base salary, and our other named executives are subject to a 4-times base salary, ownership guideline. All of our ongoing named executives are also expected to hold, as an administrative practice, an additional amount of company shares above their guideline amount equal to 1 times base salary to provide a cushion against stock volatility. All of our ongoing named executives meet the stock ownership and administrative guidelines. To determine their ownership stake we include shares owned directly, shares held in our employee stock purchase and retirement plans and shares held in certain trusts. We include 50% of unvested restricted stock and RSUs that do not have performance conditions or for which the applicable performance conditions have been met. Unearned performance shares, awards that remain subject to performance conditions and stock options are not counted toward compliance with the stock ownership guidelines.

In addition, named executives are subject to a retention requirement relating to shares received from the vesting of RSUs, PSUs, restricted stock and other long-term equity awards that were granted after their respective appointment to the Executive Committee and that were unvested as of August 2012. For the CEO, 50% of the net after-tax shares from these awards must be held until age 60; for other named executive officers, 50% of the net after-tax shares must be held for one year from the vesting date.

Anti-Hedging Policy

Our executive officers, including each named executive officer, and directors are subject to a robust anti-hedging policy which prohibits them from entering into hedging transactions with their company stock and derivative securities relating to BNY Mellon. Prohibited transactions include engaging in short sales of our stock, purchasing our stock on margin and buying or selling any puts, calls or other options involving our securities (other than options granted pursuant to our compensation program). Prior to engaging in any transaction in company stock or derivative securities (including transactions in employee benefit plans, gifts and pledges), our executive officers and directors are required to pre-clear such transaction with our legal department and obtain that department's affirmative approval to enter into the transaction.

Our anti-hedging policy applies to all securities which our executive officers and directors beneficially own and, with the exception of Trian, any entity for which an executive officer or director is attributed ownership.

Clawback and Recoupment Policy

In addition to forfeiture provisions based on risk outcomes during the vesting period, we have a comprehensive recoupment policy administered by the HRC Committee that applies to equity awards granted to our executives, including the named executive officers. Under the policy, the company may cancel all or any portion of unvested equity awards made after the policy was adopted and require repayment of any shares of common stock (or values thereof) or amounts that were acquired from the award if:

- the executive directly or indirectly engages in conduct, or it is discovered that the executive engaged in conduct, that is materially adverse to the interests of the company, including failure to comply with the company's rules or regulations, fraud or conduct contributing to any financial restatements or irregularities;
- during the course of employment, the executive engages in solicitation and/or diversion of customers or employees and/or competition with the company;
- following termination of employment with the company for any reason, the executive violates any post-termination obligations or duties owed to the company or any agreement with the company; or
- any compensation otherwise payable or paid to the executive is required to be forfeited and/or repaid to the company pursuant to applicable regulatory requirements.

In addition, we have a cash recoupment policy, which provides that the company may claw back some or all of a cash incentive award within three years of the award date if, during the award performance period, the employee (including each of the named executives) is found to have engaged in fraud or to have directly or indirectly contributed to a financial restatement or other irregularity. The company continues to monitor regulatory requirements as may be applicable to its recoupment policies.

Severance Benefits

Stockholder Approval of Future Senior Officer Severance Arrangements. In July 2010, the Board adopted a policy regarding stockholder approval of future senior officer severance arrangements. The policy provides that the company will not enter into a future severance arrangement with a senior executive that provides for severance benefits (as defined in the policy) in an amount exceeding 2.99 times the sum of annual base salary and target bonus for the year of termination (or, if greater, for the year before the year of termination), unless such arrangement receives stockholder approval.

Executive Severance Plan. In July 2010, we adopted The Bank of New York Mellon Corporation Executive Severance Plan (the "Executive Severance Plan"). In August 2016, the HRC Committee reviewed the Executive Severance Plan in light of competitive market data and determined it was appropriate to amend the plan to bring the severance benefits available thereunder more in line with those offered by peer institutions. Accordingly, participants terminated by the company without "cause" after August 11, 2017, will be eligible to receive severance in the amount of 1 times base salary. In addition, for participants terminated by the company without "cause" after August 7, 2016, eligibility for a pro-rata annual bonus for the year of termination is determined on a case by case basis and if awarded, paid at year end after an evaluation of corporate, business unit and individual performance, among other considerations. The following table sets forth the severance benefits available under the Executive Severance Plan, both before and after the HRC Committee's August 2016 amendment.

Reason for Termination		Severance Payment	Bonus	Benefit Continuation	Outplacement Services
By the company without "cause"	Original	2 times base salary	Pro-rata annual bonus for the year of termination	Two years	One year
	Revised	Reduced to 1 times base salary	Pro-rata annual bonus paid at year end at the discretion of management and the HRC Committee	Reduced to one year	No change
By the company without "cause" or by the executive for "good reason" within two years following a "change in control"	Original	2 times base salary and 2 times target annual bonus	Pro-rata target annual bonus for the year of termination	Two years	One year
	Revised	No change	No change	No change	No change

Executive Severance Plan participants are selected by the HRC Committee and include each of our named executives. To receive benefits under the plan, the participant must sign a release and waiver of claims in favor of the company and agree not to solicit our customers and employees for one year.

We do not provide any severance-related tax gross-ups. If any payment under the Executive Severance Plan would cause a participant to become subject to the excise tax imposed under Section 4999 of the Internal Revenue Code of 1986 ("IRC"), then payments and benefits will be reduced to the amount that would not cause the participant to be subject to the excise tax if such a reduction would put the participant in a better after-tax position than if the participant were to pay the tax. In addition, the amount of payments and benefits payable under the plan will be reduced to the extent necessary to comply with our policy regarding stockholder approval of future senior officer severance arrangements as described above.

Separation Benefits for Mr. Arledge

Mr. Arledge's employment with the company terminated effective March 23, 2016. In connection with his termination, the company determined that he was eligible to receive payments under the Executive Severance Plan for a termination by the company without "cause." In accordance with the plan, Mr. Arledge received a severance payment of $1,300,000 equal to two times his base salary payable over two years; a 2016 incentive award pro-rated for the portion of the year during which he was employed by us, with such benefit determined by the company's actual performance during such period; benefits continuation for two years; and outplacement services for one year.

In determining the 2016 incentive for Mr. Arledge, the HRC Committee awarded him an individual modifier of 100%. Combined with the corporate component payout of 103% (weighted 50%) and the business unit payout for the investment management business of 72% (weighted 50%), the total incentive compensation awarded to Mr. Arledge was 88% of target. Mr. Arledge had a target of $13,350,000 and his award was pro-rated for the portion of the year during which he was employed by us, resulting in an incentive award of $1,456,964. 30% of Mr. Arledge's incentive compensation was paid in cash and 70% was deferred in the form of RSUs, which vest in equal installments over three years.

Additionally, as a result of his departure prior to the completion of the applicable performance periods, Mr. Arledge vested in a pro-rated portion of the 2016 tranche of his February 2014 PSU awards and is eligible to vest in a pro-rated portion of his unvested February 2015 and 2016 PSU awards. Accordingly, Mr. Arledge vested in 9,055 shares under the 2016 tranche of the February 2014 PSU awards and the number of shares under the February 2015 and February 2016 PSU awards in which Mr. Arledge will vest will be based on the company's actual performance as determined by the HRC Committee at the end of the applicable performance periods, and pro-rated to reflect the portion of each such performance period during which he was employed by us.

Tax Considerations

The HRC Committee considers certain tax implications when designing our executive compensation programs and certain specific awards. The HRC Committee considered that Section 162(m) of the IRC generally imposes a $1 million limit on the amount that a public company may deduct for compensation paid to its CEO and the three other most highly compensated officers each year. This limitation does not apply to "qualifying performance-based" compensation as defined in the IRC. We generally design our compensation programs so that compensation paid to the named executives can qualify for available income tax deductions. Our incentive awards are granted under our stockholder-approved Executive Incentive Compensation Plan and intended to be "qualifying performance-based" compensation. In that regard, incentive compensation paid to any individual for the calendar year cannot exceed the sum of $3 million plus 0.5% of our positive pre-tax income from continuing operations, before the impact of the cumulative effect of accounting changes and extraordinary items, as disclosed on our consolidated statement of income for such year included in our Annual Report on Form 10-K.

However, the HRC Committee believes that stockholders' interests may best be served by offering compensation that is not fully deductible, where appropriate, to attract, retain and motivate talented executives. Accordingly, the HRC Committee has discretion to authorize compensation that does not qualify for income tax deductibility.

How We Address Risk and Control

Regular Review of Compensation Plans and Practices + Direct Link Between Pay and Risk-Taking + Comprehensive Recoupment Policy + Incentive Award Funding Condition

On a regular basis, our Chief Risk Officer and our HRC Committee review the company's risk appetite, practices and employee compensation plans, including sales incentives, for alignment with sound risk management. Our Chief Risk Officer also met with the HRC Committee to specifically discuss and review our 2016 compensation plans, including the plans in which members of the Executive Committee participate. With respect to employees broadly, we also monitor the company's compensation plans through a management-level compensation oversight committee that includes our Chief Risk Officer, Chief Human Resources Officer, Chief Financial Officer and the Risk Management and Compliance Chief Administrative Officer. The committee receives regular reports, meets at least on a quarterly basis and reports to the HRC Committee on risk-related compensation issues.

We identify employees who, individually or as a group, are responsible for activities that may expose us to material amounts of risk, using a risk-related performance evaluation program with adjustments determined by a senior management committee responsible for control functions, with such adjustments later reviewed by the HRC Committee. The incentive compensation of identified employees is directly linked to risk-taking either through a "risk scorecard" or through the inclusion of a standard risk goal as part of our performance management process.

With respect to our named executive officers, a common equity Tier 1 ratio of at least 8.5% on a fully phased-in basis calculated under the Advanced Approach was established as a minimum funding requirement for our incentive compensation, with such percentage being equal to the regulatory threshold ratio to which we expect to be held on a fully phased-in basis, including estimated buffers. Our incentive compensation also takes into account a risk assessment for both the company as a whole and for each individual. In addition, all of our named executive officers' equity awards are subject to 100% forfeiture during, and clawback following, the vesting period and all of their cash incentives are subject to 100% clawback within three years following the award date, in each case based on ongoing risk assessments under our comprehensive recoupment policy.

We are also subject to regulation by various U.S. and international governmental and regulatory agencies with respect to executive compensation matters and the consideration of risk in the context of compensation. Our programs have been designed to comply with these regulations, and the HRC Committee regularly monitors new and proposed regulations as they develop to determine if additional action is required.

Based on the above, we believe that our compensation plans and practices are well-balanced and do not encourage imprudent risk-taking that threatens our company's value or create risks that are reasonably likely to have a material adverse effect on the company.

Report of the HRC Committee

The HRC Committee has reviewed and discussed the foregoing Compensation Discussion and Analysis with management. On the basis of such review and discussions, the HRC Committee recommended to the Board of Directors that the Compensation Discussion and Analysis be included in the company's Annual Report on Form 10-K and this proxy statement.

By: The Human Resources and Compensation Committee

Edward P. Garden, Chairman
Jeffrey A. Goldstein
Edmund F. "Ted" Kelly
Samuel C. Scott III

Summary Compensation Table

The Summary Compensation Table and Grants of Plan-Based Awards Table, on this page 60 and on page 62, are in accordance with SEC rules and do not reflect the manner in which our HRC Committee thinks about and determines compensation. In particular, the SEC rules require that we report equity-based awards for the year that they are granted, even though the equity-based portion of our incentive compensation is awarded for services performed the prior year and our long-term equity incentives are awarded after adjustment for performance during the prior year.

Name and Principal Position	Year	Salary	Bonus	Stock Awards(1)(2)	Option Awards	Non-Equity Incentive Plan Compensation	Change in Pension Value and Nonqualified Deferred Compensation Earnings(3)	All Other Compensation(4)	Total Compensation
Gerald L. Hassell	2016	$1,000,000	$—	$13,656,477	$—	$4,326,000	$—	$183,121	$19,165,598
Chairman & Chief Executive Officer	2015	$1,000,000	$—	$9,889,738	$—	$2,419,200	$—	$173,496	$13,482,434
	2014	$1,000,000	$—	$7,750,031	$—	$1,244,640	$1,509,388	$155,469	$11,659,528
Thomas P. "Todd" Gibbons	2016	$650,000	$—	$4,755,929	$—	$2,354,580	$179,290	$84,360	$8,024,159
Vice Chairman & Chief Financial Officer	2015	$650,000	$—	$3,510,949	$—	$2,426,760	$—	$76,731	$6,664,440
	2014	$650,000	$—	$2,982,659	$—	$1,808,471	$978,123	$78,460	$6,497,713
Brian T. Shea(5)	2016	$625,000	$—	$4,812,725	$—	$2,388,870	$—	$114,200	$7,940,795
Vice Chairman & CEO of Investment Services	2015	$575,000	$—	$3,033,843	$—	$2,459,646	$—	$115,616	$6,184,105
Karen B. Peetz	2016	$650,000	$—	$3,280,346	$—	$1,353,938	$—	$48,550	$5,332,834
President	2015	$650,000	$—	$3,439,089	$—	$1,647,726	$39,595	$43,000	$5,819,410
	2014	$650,000	$—	$2,907,106	$—	$1,716,826	$233,014	$26,012	$5,532,958
Mitchell E. Harris(5)	2016	$625,000	$—	$3,713,373	$—	$1,736,438	$74,252	$18,550	$6,167,613
CEO of Investment Management									
Curtis Y. Arledge(6)	2016	$162,500	$—	$7,230,894	$—	$437,089	$—	$1,398,747	$9,229,230
Former Vice Chairman & CEO of Investment Management	2015	$650,000	$—	$8,082,755	$—	$3,364,200	$—	$121,592	$12,218,547
	2014	$650,000	$—	$7,544,542	$—	$3,647,534	$—	$95,396	$11,937,472

(1) The amounts disclosed in this column include the grant date fair value of RSUs and PSUs granted in 2016, 2015 and 2014. For 2016, the grant date fair values of PSUs were: $4,091,945 for Mr. Hassell; $1,824,324 for Mr. Gibbons; $1,841,370 for Mr. Shea; $1,289,825 for Ms. Peetz; $1,734,624 for Mr. Harris; and $3,166,824 for Mr. Arledge. At the maximum level of performance, the PSU values would be: $6,137,917 for Mr. Hassell; $2,736,486 for Mr. Gibbons; $2,762,055 for Mr. Shea; $1,934,738 for Ms. Peetz; $2,601,936 for Mr. Harris; and $4,750,235 for Mr. Arledge.

(2) The amounts disclosed in these columns are computed in accordance with FASB ASC Topic 718 ("ASC 718") using the valuation methodology for equity awards set forth in note 15 to the consolidated financial statements in our Annual Report on Form 10-K for the year ended December 31, 2016.

(3) The amount disclosed in this column for 2016 represents the amount of increase in the present value of the executive's accumulated pension benefit and, for Mr. Harris, also includes $21,341 representing the portion of interest accrued on deferred compensation above 120% of the applicable federal long-term rate at the maximum rate payable under the Mellon Elective Deferred Compensation Plan for Senior Officers (see page 68 for additional information about this plan). Present values are determined in accordance with the assumptions used for purposes of measuring our pension obligations under FASB ASC 715 as of December 31, 2016, including a discount rate of 4.35%, with the exception that benefit payments are assumed to commence at the earliest age at which unreduced benefits are payable. The increase in present value of accumulated benefit for Mr. Hassell is negative $212,805 (this negative amount is not reflected in the amount disclosed above for Mr. Hassell). The increase in present value of accumulated benefit for Ms. Peetz is negative $7,717 (this negative amount is not reflected in the amount disclosed above for Ms. Peetz).

(4) The items comprising "All Other Compensation" for 2016 are:

Name	Perquisites and Other Personal Benefits[(a)]	Contributions to Defined Contribution Plans[(b)]	Insurance Premiums[(c)]	Severance Payments[(d)]	Total
Gerald L. Hassell	$149,921	$18,550	$14,650	$—	$183,121
Thomas P. "Todd" Gibbons	$55,710	$18,550	$10,100	$—	$84,360
Brian T. Shea	$95,650	$18,550	$—	$—	$114,200
Karen B. Peetz	$30,000	$18,550	$—	$—	$48,550
Mitchell E. Harris	$—	$18,550	$—	$—	$18,550
Curtis Y. Arledge	$56,177	$8,125	$—	$1,334,445	$1,398,747

(a) "Perquisites and Other Personal Benefits" are for Mr. Hassell, use of company car and driver ($53,237), use of company aircraft ($66,684) and enhanced charitable gift match ($30,000); for Mr. Gibbons, use of company car and driver ($42,597), use of company aircraft ($8,061) and enhanced charitable gift match ($5,052); for Mr. Shea, use of company car and driver ($65,650) and enhanced charitable gift match ($30,000); for Ms. Peetz, enhanced charitable gift match ($30,000); and for Mr. Arledge, use of company car and driver ($26,177) and enhanced charitable gift match ($30,000).

The amounts disclosed represent aggregate incremental costs as follows: use of the company car and driver determined by the company's net cost associated with the individual's personal use of the pool of vehicles and drivers; personal use of corporate aircraft determined by the direct hourly operating cost for use of the aircraft multiplied by the number of hours of personal use; and the enhanced charitable gift match determined by matching contributions to eligible charities made by the company in excess of those provided for other employees under the company's gift matching programs. We calculated the direct hourly operating cost for use of the aircraft by adding the total amount spent by us for fuel, maintenance, landing fees, travel and catering associated with the use of corporate aircraft in 2016 and divided this number by the total number of flight hours logged in 2016.

(b) "Contributions to Defined Contribution Plans" consist of matching contributions under our 401(k) plans and non-discretionary company contributions under The Bank of New York Mellon Corporation Defined Contribution IRC Section 401(a)(17) Plan (the "BNY Mellon 401(k) Benefits Restoration Plan"). See "Nonqualified Deferred Compensation" below on page 67 for more details regarding the BNY Mellon 401(k) Benefits Restoration Plan. In addition, for Messrs. Hassell, Gibbons, Shea and Harris and Ms. Peetz, the amount includes non-discretionary company contributions totaling 2% of base salary under our 401(k) plan.

(c) Represent taxable payments made by us for universal life insurance policies.

(d) Represents the following severance payments made by us pursuant to the Executive Severance Plan: two times base salary ($1,300,000) and two years of benefits continuation (valued at $34,445).

(5) Because Mr. Shea was only a named executive in 2016 and 2015, no disclosure is included as to Mr. Shea for 2014. Because Mr. Harris was only a named executive in 2016, no disclosure is included as to Mr. Harris for 2015 or 2014.

(6) Mr. Arledge's employment with BNY Mellon terminated on March 23, 2016.

Grants of Plan-Based Awards

				Estimated Possible Payouts Under Non-Equity Incentive Plan Awards(1)			Estimated Possible Payouts Under Equity Incentive Plan Awards(2)			
Name	Award Type	Grant Date	Date HRC Committee took Action to Grant Award	Threshold ($)	Target ($)	Maximum ($)	Threshold (#)	Target (#)	Maximum (#)	Grant Date Fair Value of Stock Awards ($)(3)
Gerald L. Hassell	EICP	—	—	—	$14,000,000	$21,000,000	—	—	—	—
	PSUs	2/19/2016	2/19/2016	—	—	—	—	117,147	175,721	$4,091,945
Thomas P. "Todd" Gibbons	EICP	—	—	—	$6,350,000	$9,525,000	—	—	—	—
	PSUs	2/19/2016	2/19/2016	—	—	—	—	52,228	78,342	$1,824,324
Brian T. Shea	EICP	—	—	—	$6,350,000	$9,525,000	—	—	—	—
	PSUs	2/19/2016	2/19/2016	—	—	—	—	52,716	79,074	$1,841,370
Karen B. Peetz	EICP	—	—	—	$4,350,000	$6,525,000	—	—	—	—
	PSUs	2/19/2016	2/19/2016	—	—	—	—	36,926	55,389	$1,289,825
Mitchell E. Harris	EICP	—	—	—	$7,350,000	$11,025,000	—	—	—	—
	PSUs	2/19/2016	2/19/2016	—	—	—	—	49,660	74,490	$1,734,624
Curtis Y. Arledge	EICP	—	—	—	$13,350,000	$20,025,000	—	—	—	—
	PSUs	2/19/2016	2/19/2016	—	—	—	—	90,662	135,993	$3,166,824

(1) Represents incentive compensation amounts to be paid for performance during 2016 under The Bank of New York Mellon Corporation Executive Incentive Compensation Plan (the "EICP"). Amounts earned under the EICP in 2017 (for 2016 performance) were made 25% in the form of cash, 50% in the form of PSUs and 25% in the form of RSUs for Mr. Hassell; 30% in the form of cash and 70% in the form of RSUs for Ms. Peetz and Mr. Arledge; and 30% in the form of cash, 45% in the form of PSUs and 25% in the form of RSUs for our other named executives. There was no threshold payout under this plan for 2016.

The table above does not reflect the RSUs that were granted on February 19, 2016 with respect to each named executive's 2015 annual incentive award, which was made 20% in the form of cash and 80% in the form of RSUs for Mr. Hassell and 45% in the form of cash and 55% in the form of RSUs for our other named executives. The RSUs vest in equal installments over three years. In the event that the named executive's risk scorecard rating is lower than acceptable risk tolerance, any unvested RSUs will be subject to review and potential forfeiture, as determined by our HRC Committee. The 2015 annual incentive award was previously reported in the 2015 Grants of Plan-Based Awards Table.

(2) Represents the portion of the named executive's incentive compensation award granted in the form of PSUs under The Bank of New York Mellon Corporation Long-Term Incentive Plan. The amounts shown under the Maximum column represent the maximum payout level of 150% of target; there is no threshold payout level. Upon vesting, the PSUs will be paid out in shares of BNY Mellon common stock. PSUs cannot be sold during the period of restriction. During this period, dividend equivalents on the PSUs will be reinvested and paid to the executives at the same time as the underlying shares. These units will be earned between 0 – 150% based on our 2018 OEPS and growth in Risk Weighted Assets from 12/31/2015 to 12/31/2018 with a negative risk modifier should risk-weighted assets grow at an unacceptable rate. The earned units generally will cliff vest after the end of the performance period if the executive remains employed by us. In the event that the named executive's risk scorecard rating is lower than acceptable risk tolerance, any unvested PSUs will be subject to review and potential forfeiture, as determined by our HRC Committee.

(3) The aggregate grant date fair value of awards presented in this column is calculated in accordance with ASC 718.

Outstanding Equity Awards at Fiscal Year-End

The market value of unvested or unearned awards is calculated based on $47.38 per share, the closing price of our common stock on the NYSE on December 30, 2016.

		Option Awards				Stock Awards[2]			
		Number of Securities Underlying Unexercised Options (#)							
Name	Year of Grant/ Performance Period[1]	Exercisable	Unexercisable	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested ($)
Gerald L. Hassell	2008	380,916	—	$42.3100	3/10/2018				
	2010	319,803	—	$30.2500	3/15/2020				
	2011	295,119	—	$30.1300	2/23/2021				
	2012	434,412	—	$22.0300	2/22/2022				
	2014					46,732	$2,214,162		
	2015					87,804	$4,160,154		
	2016					273,820	$12,973,592		
	2014-2016					96,635[3]	$4,578,559		
	2015-2017							123,175[4]	$5,836,028
	2016-2018							119,190[4]	$5,647,226
Thomas P. "Todd" Gibbons	2008	184,380	—	$42.3100	3/10/2018				
	2008	38,152	—	$34.6300	7/21/2018				
	2011	190,124	—	$30.1300	2/23/2021				
	2012	128,432	—	$22.0300	2/22/2022				
	2014					15,774	$747,372		
	2015					23,963	$1,135,367		
	2016					83,928	$3,976,509		
	2014-2016					43,083[3]	$2,041,261		
	2015-2017							54,915[4]	$2,601,890
	2016-2018							53,139[4]	$2,517,720
Brian T. Shea	2011	119,182	—	$30.1300	2/23/21				
	2012	80,494	—	$22.0300	2/22/22				
	2014					13,106	$620,962		
	2015					21,851	$1,035,300		
	2016					85,066	$4,030,427		
	2014-2016					39,418[3]	$1,867,645		
	2015-2017							45,677[4]	$2,164,164
	2016-2018							53,635[4]	$2,541,244
Karen B. Peetz	2014					14,965	$709,042		
	2015					22,748	$1,077,800		
	2016					56,986	$2,699,997		
	2014-2016					43,083[3]	$2,041,261		
	2015-2017							54,915[4]	$2,601,890
	2016-2018							37,570[4]	$1,780,067

Name	Year of Grant/ Performance Period[1]	Option Awards: Number of Securities Underlying Unexercised Options (#) Exercisable	Option Awards: Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date	Stock Awards[2]: Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested ($)
Mitchell E. Harris	2012	31,621	—	$22.0300	2/22/2022				
	2014					19,695	$933,149		
	2015					27,934	$1,323,513		
	2016					56,649	$2,684,030		
	2014-2016					52,344[3]	$2,480,041		
	2015-2017							66,720[4]	$3,161,192
	2016-2018							50,526[4]	$2,393,926
Curtis Y. Arledge	2014					40,452	$1,916,616		
	2015					48,332	$2,289,970		
	2016					116,349	$5,512,616		
	2014-2016					74,979[3]	$3,552,486		
	2015-2017							56,013[4]	$2,653,903
	2016-2018							6,986[4]	$330,985

(1) Refers to the year of grant for stock options and RSUs, and to the performance period for PSUs.

(2) RSUs vest in accordance with the following schedule:

Year of Grant	
2014	1/3 vest per year over a three-year period; the remaining unvested RSUs vested on 2/19/2017
2015	1/3 vest per year over a three-year period; the remaining unvested RSUs vested 1/2 on 2/20/2017 and vest 1/2 on 2/20/2018
2016	1/3 vest per year over a three-year period; the remaining unvested RSUs vested 1/3 on 2/19/2017 and vest 1/3 on 2/19/2018 and 1/3 on 2/19/2019

PSUs are earned and vest in accordance with the following schedule:

Year of Grant	
2014	1/3 earned per year over the three-year performance period, between 0 – 125% of target based on our return on risk-weighted assets during each year; earned PSUs cliff vested at the end of the performance period (on 2/19/2017)
2015	Earned, between 0 – 125% of target, based on our OEPS growth over the three-year performance period with a negative risk modifier should risk-weighted assets grow at an unacceptable rate; earned PSUs cliff vest at the end of the performance period (on 2/20/2018)
2016	Earned, between 0 – 150% of target, based on our 2018 OEPS and growth in Risk Weighted Assets from 12/31/2015 to 12/31/2018 with a negative risk modifier should risk-weighted assets grow at an unacceptable rate; earned PSUs cliff vest at the end of the performance period (on 2/19/2019)

(3) Includes accrued dividends on all tranches for the PSUs granted in 2014, which were earned based on performance as of December 31, 2016 but remained subject to ongoing time-vesting conditions.

(4) Includes accrued dividends on the unearned portion of the PSUs granted in 2015 and 2016, assuming target performance.

Option Exercises and Stock Vested

	Option Awards		Stock Awards	
Name	Number of Shares Acquired on Exercise(#)	Value Realized on Exercise ($)	Number of Shares Acquired on Vesting(#)	Value Realized on Vesting ($)
Gerald L. Hassell	784,818	$3,295,081	245,279	$8,567,612
Thomas P. "Todd" Gibbons	514,557	$6,336,932	99,218	$3,465,687
Brian T. Shea	—	$—	82,846	$2,893,811
Karen B. Peetz	244,865	$1,789,394	96,048	$3,354,958
Mitchell E. Harris	—	$—	122,920	$4,293,578
Curtis Y. Arledge	864,077	$13,093,308	248,274	$8,672,215

Pension Benefits

Name	Plan Name(1)	Number of Years Credited Service (#)	Present Value of Accumulated Benefit ($)(2)	Payments During Last Fiscal Year ($)
Gerald L. Hassell	BNY Mellon Tax-Qualified Retirement Plan	38.75	$ 1,601,620	$—
	Legacy BNY Excess Plan	38.75	$ 4,274,731	$—
	Legacy BNY SERP	38.25	$11,395,364	$—
Thomas P. "Todd" Gibbons	BNY Mellon Tax-Qualified Retirement Plan	28.08	$ 1,272,484	$—
	Legacy BNY Excess Plan	28.08	$ 2,029,410	$—
	Legacy BNY SERP	27.58	$ 3,483,706	$—
Karen B. Peetz	BNY Mellon Tax-Qualified Retirement Plan	16.25	$ 677,557	$—
	Legacy BNY Excess Plan	16.25	$ 459,497	$—
Mitchell E. Harris	BNY Mellon Tax-Qualified Retirement Plan	10.75	$ 346,728	$—
	Legacy Mellon IRC Section 401(a)(17) Plan	10.75	$ 508,173	$—

(1) Benefit accruals under the Legacy BNY SERP were frozen as of December 31, 2014, and benefit accruals under the Legacy BNY Excess Plan and the BNY Mellon Tax-Qualified Retirement Plan were frozen as of June 30, 2015.

(2) The present values shown above are based on benefits earned as of December 31, 2016 under the terms of the various plans as summarized below. Present values are determined in accordance with the assumptions used for purposes of measuring our pension obligations under FASB ASC 715 as of December 31, 2016, including a discount rate of 4.35%, with the exception that benefit payments are assumed to commence at the earliest age at which unreduced benefits are payable.

BNY Mellon Retirement Plans

The BNY Mellon Tax-Qualified Retirement Plan was previously amended effective January 1, 2009, to change the benefit formula for participants under age 50 as of December 31, 2008 and for new participants to a cash balance formula for service earned on and after January 1, 2009. Plan participants who were age 50 or older as of December 31, 2008 continued to earn benefits through June 30, 2015 under the provisions of the legacy plan in which they participated as of that date. Because each of Messrs. Hassell and Gibbons and Ms. Peetz were all over age 50 as of December 31, 2008, they continued to earn benefits under the provisions of the legacy plans in which they participate.

Because Messrs. Hassell and Gibbons and Ms. Peetz have attained at least age 55, they are each eligible for immediate retirement under the BNY Mellon Tax-Qualified Retirement Plan and the Legacy BNY Excess Plan. Unreduced benefits are payable under these plans at age 60, or at age 57 with 20 years of service. Messrs. Hassell and Gibbons and Ms. Peetz are currently entitled to unreduced benefits from these plans. Since Mr. Hassell is over age 60, he is also entitled to an unreduced benefit from the Legacy BNY SERP. Messrs. Shea, Harris and Arledge do not participate in any plan that provides for specified payments and benefits (other than defined contribution plans) and accordingly, are not included in the Pension Benefits table above.

BNY Mellon Tax-Qualified Retirement Plan — Legacy BNY Provisions. The Legacy BNY Tax-Qualified Retirement Plan (the "Legacy BNY Plan") formula is a career average pay formula subject to IRC limits on eligible pay for determining benefits. Benefits are based on eligible base pay (maximum of $265,000 in 2016). Employees who participated in the Legacy BNY Plan prior to January 1, 2006 may choose between a monthly benefit and a lump sum at retirement, while other participants will receive monthly benefits at retirement.

Legacy BNY Excess Plan. This plan is an unfunded nonqualified plan designed to provide the same benefit to Legacy BNY employees as under the BNY Mellon Tax-Qualified Retirement Plan to the extent their benefits are limited under such plan as a result of IRC limits on accrued benefits and eligible base pay. Benefits are paid in a lump sum.

Legacy BNY SERP. The Legacy BNY SERP is an unfunded nonqualified plan that provides benefits according to a benefit formula similar to that of the BNY Mellon Tax-Qualified Retirement Plan benefit formula but includes an annual bonus (capped at 100% of base salary after 2005) for senior executives who were selected to participate in this plan by The Bank of New York's board of directors prior to July 8, 2003. Benefits are paid in a lump sum. Participants are entitled to benefits in this plan only if they terminate service on or after age 60.

All of these plans are closed to new participants and were frozen as of December 31, 2014 for the Legacy BNY SERP and as of June 30, 2015 for the BNY Mellon Tax-Qualified Retirement Plan and the Legacy BNY Excess Plan. Beginning with 2006, all of the plans generally provided benefits under a career average pay formula, rather than the final average pay formula under which benefits were based prior to 2006. From January 1, 2006 through the applicable date on which the plan was frozen, benefits accrued for all three plans were equal to 1% (increased to 1.1% effective January 1, 2009 and with respect to the BNY Mellon Tax-Qualified Retirement Plan and the Legacy BNY Excess Plan, decreased to 0.9%, effective January 1, 2011) of eligible pay earned after 2005. Benefits accrued before 2006 were based on a final average pay formula and service as of December 31, 2005 using a five-year average period for the BNY Mellon Tax-Qualified Retirement Plan and the Legacy BNY Excess Plan and a three-year average period for the Legacy BNY SERP. Prior to the applicable date on which each plan was frozen, the benefit accrued prior to 2006 was indexed at a rate of 1% per year. Accrued benefits under each of the plans were provided solely for service at The Bank of New York or with us.

Nonqualified Deferred Compensation

The following table provides information with respect to each defined contribution or other plan that provides for nonqualified deferred compensation in which the named executives participate. For 2016, each of our named executives participated in the BNY Mellon 401(k) Benefits Restoration Plan, and Mr. Harris participated in the BNY Mellon Deferred Compensation Plan and the Mellon Elective Deferred Compensation Plan for Senior Officers. Each of these plans is described below.

Name	Executive Contributions in Fiscal Year 2016	Registrant Contributions in Fiscal Year 2016(1)	Aggregate Earnings in Fiscal Year 2016	Aggregate Withdrawals/ Distributions	Aggregate Balance at End of Fiscal Year 2016
Gerald L. Hassell	$—	$14,700	$1,135	$—	$25,835
Thomas P. "Todd" Gibbons	$—	$7,700	$764	$—	$14,964
Brian T. Shea	$—	$7,200	$1,439	$—	$28,949
Karen B. Peetz	$—	$7,700	$3	$—	$14,203
Mitchell E. Harris(2)	$—	$7,200	$129,303	$252,988	$2,993,714
Curtis Y. Arledge	$—	$—	$2,230	$41,723	$—(3)

(1) These amounts represent contributions under the BNY Mellon 401(k) Benefits Restoration Plan and are included in the All Other Compensation column of the Summary Compensation Table on page 60.

(2) Amounts for Mr. Harris reflect aggregate balances and earnings in the BNY Mellon 401(k) Benefits Restoration Plan, the BNY Mellon Deferred Compensation Plan, and the Mellon Elective Deferred Compensation Plan for Senior Officers. Mr. Harris received a distribution of $252,988 pursuant to his election to receive his balance in the BNY Mellon Deferred Compensation Plan in 5 annual installments.

(3) Mr. Arledge received a distribution of his balance in the BNY Mellon 401(K) Benefits Restoration Plan as a result of the termination of his employment.

BNY Mellon Nonqualified Deferred Compensation Plans

BNY Mellon 401(k) Benefits Restoration Plan. The BNY Mellon 401(k) Benefits Restoration Plan is a nonqualified plan designed for the purpose of providing deferred compensation on an unfunded basis for eligible employees. The deferred compensation provided under the BNY Mellon 401(k) Benefits Restoration Plan is intended to supplement the benefit provided under the BNY Mellon 401(k) Savings Plan, our 401(k) Plan, for employees not accruing benefits in our defined benefit pension plans where the employee's retirement contributions under the 401(k) Plan are limited due to the maximums imposed on "qualified" plans by Section 401(a)(17) of the Internal Revenue Code (the "IRC"). Pursuant to the BNY Mellon 401(k) Benefits Restoration Plan, we set up a notional account that is credited with an amount, if any, of non-discretionary company contributions that would have been credited to each eligible employee's 401(k) Plan account absent those tax limitations, including for prior years in which the BNY Mellon 401(k) Benefits Restoration Plan was not yet in effect. The amounts credited to the notional accounts generally vest after three years of service, as defined and calculated under the 401(k) Plan. As of December 31, 2016, all of our named executives participate in the BNY Mellon 401(k) Benefits Restoration Plan.

BNY Mellon Deferred Compensation Plan. The BNY Mellon Deferred Compensation Plan permits eligible employees, including our named executives, to defer receipt of cash bonus/incentive amounts above the Social Security wage base (which was $118,500 in 2016) until a later date while employed, upon retirement or after retirement not to exceed age 70. Changes are permitted to the payment election once annually; however, they must comply with the regulations contained in The American Jobs Creation Act of 2004. Deferred compensation may be paid in a lump sum or annual payments over 2 to 15 years. If an executive terminates employment prior to age 55, his benefit is paid in a lump sum shortly after termination. Investment alternatives, based on a selection of variable rate options, must be selected when the executive makes a deferral election and may be changed each quarter for future deferrals. Previously deferred amounts may generally be reallocated among the investment options at the beginning of each quarter. The plan is a nonqualified unfunded plan. As of December 31, 2016, Mr. Harris is the only named executive that participates in the plan.

Mellon Elective Deferred Compensation Plan for Senior Officers. The Mellon Elective Deferred Compensation Plan for Senior Officers is a nonqualified, unfunded plan that permitted executives, including Mr. Harris, to defer receipt of earned salary and cash bonus/incentive amounts above the Social Security wage base until a later date while employed, upon retirement or after retirement not to exceed age 70. Deferred compensation may be paid in a lump sum or annual payments over 2 to 15 years. If an executive terminates employment prior to age 55, his benefit is paid in a lump sum shortly after termination. The executive may allocate his deferrals to receive earnings based on multiple variable rates or a declared rate (for 2016, 4.31%). Previously deferred amounts allocated to the declared rate must remain in the declared rate. Although the plan is unfunded, funds have been set aside in an irrevocable grantor trust for the purpose of paying benefits under the plan to participants.

Potential Payments upon Termination or Change in Control

The following discussion summarizes any arrangements, agreements and policies of the company relating to potential payments upon termination or change in control.

Retirement Benefits

As shown in the Pension Benefits and the Nonqualified Deferred Compensation Tables above, we provide qualified and non-qualified pension retirement benefits and qualified and non-qualified defined contribution retirement benefits (with the specific plans varying depending on when participation began).

In addition, we provide accelerated or continued vesting of equity awards for participants who are eligible for retirement, with the eligibility dependent on the individual's age and length of service and the terms of the applicable plan and award agreements. At December 31, 2016 and using the same assumptions as used for the Table of Other Potential Payments below, our named executives were eligible to receive accelerated or continued vesting of stock awards in the following amounts: for Mr. Hassell, $35,708,927; for Mr. Gibbons, $8,900,269; for Mr. Shea, $8,478,092; and for Mr. Harris, $13,055,365. Mr. Arledge was not retirement-eligible when his employment with BNY Mellon terminated on March 23, 2016. Ms. Peetz is not included above because her employment with us terminated due to her retirement on December 31, 2016. Accelerated or continued vesting is not provided on termination by the company for cause.

Other Potential Payments upon Termination or Change in Control

Change in Control and Severance Arrangements. Since 2010, our Board has implemented a "Policy Regarding Stockholder Approval of Future Senior Officer Severance Arrangements." The policy provides that the company will not enter into a future severance arrangement with a senior executive that provides for severance benefits (as defined in the policy) in an amount exceeding 2.99 times the sum of the senior executive's annual base salary and target bonus for the year of termination (or, if greater, for the year before the year of termination), unless such arrangement receives approval of the stockholders of the company.

Under the Executive Severance Plan, if an eligible participant is terminated by the company without "cause" (as defined in the plan), the participant is eligible to receive a severance payment equal to two times (if terminated after August 11, 2017, one times) the participant's base salary for the year of termination (or, if greater, for the year before the year of termination), benefit continuation for two years (if terminated after August 11, 2017, one year) and outplacement services for one year. The participant is also eligible for a pro-rata annual bonus for the year of termination in the Company's sole discretion. If a participant's employment is terminated by the company without cause or if the participant terminates his or her employment for "good reason" (as defined in the plan) within two years following a "change in control" (as defined in the plan), then instead of receiving the benefits described above, the participant is eligible to receive a severance payment equal to two times the sum of the participant's base salary and target annual bonus for the year of termination (or, if greater, for the year before the year of termination), a pro-rata target annual bonus for the year of termination, benefit continuation for two years and outplacement services for one year. The payments and benefits under the plan are subject to the participant signing a release and waiver of claims in favor of the company and agreeing not to solicit our customers and employees for one year. If any payment under the plan would cause a participant to become subject to the excise tax imposed under Section 4999 of the IRC, then payments and benefits will be reduced to the amount that would not cause the participant to be subject to the excise tax if such a reduction would put the participant in a better after tax position than if the participant were to pay the tax.

Payments and benefits that are payable under the plan will be reduced to the extent that the amount of such payments or benefits would exceed the amount permitted to be paid under the company's "Policy Regarding Stockholder Approval of Future Senior Officer Severance Arrangements" and such amounts are not approved by the company's stockholders in accordance with the policy.

Unvested Equity Awards. Equity awards granted to our named executives through December 31, 2016 were granted under The Bank of New York Mellon Corporation Long-Term Incentive Plan, as applicable. Each award is evidenced by an award agreement that sets forth the terms and conditions of the award and the effect of any termination event or a change in control on unvested equity awards. Accordingly, the effect of a termination event or change in control on outstanding equity awards varies by executive officer and type of award.

Table of Other Potential Payments. The following table is based on the following:

- The termination event listed in the table is assumed to be effective as of December 31, 2016.
- The value of our common stock of $47.38 per share is based on the closing price of our common stock on the NYSE on December 30, 2016, the last trading day in 2016.
- The amounts shown in the table include the estimated potential payments and benefits that are payable as a result of the triggering event and do not include any pension, deferred compensation, or option/stock award vesting that would be earned on retirement as described above. We have only included amounts by which a named executive's retirement benefit is enhanced by the triggering event, or additional option/stock awards that vest on the triggering event that would not vest on retirement alone. See "Retirement Benefits" on page 68 above for information on the acceleration or continued vesting of equity awards upon retirement.
- The designation of an event as a termination in connection with a change of control is dependent upon the termination being either an involuntary termination by the company without cause or a termination by the named executive for good reason.
- "Cash Compensation" includes payments of salary, bonus, severance or death benefit amounts payable in the applicable scenario.

The actual amounts that would be payable in these circumstances can only be determined at the time of the executive's separation, would include payments or benefits already earned or vested and may differ from the amounts set forth in the tables below. In some cases a release may be required before amounts would be payable. Although we may not have any contractual obligation to make a cash payment or provide other benefits to any named executive in the event of his or her death or upon the occurrence of any other event, a cash payment may be made or other benefit may be provided in our discretion. The incremental benefits that would be payable upon certain types of termination of employment as they pertain to the named executives are described below.

Mr. Arledge is not included in the table below because his employment with us terminated in 2016; see "Separation Benefits for Mr. Arledge" on page 57 for information on payments he received in connection with his termination. Mr. Arledge also will continue to vest in the stock awards disclosed in "Outstanding Equity Awards at Fiscal Year-End" on page 63 in accordance with the applicable award agreements.

Ms. Peetz is not included in the table below because her employment with us terminated due to her retirement on December 31, 2016. Ms. Peetz did not receive severance in connection with her retirement. She will continue to vest in the stock awards disclosed in "Grants of Plan-Based Awards" on page 62 and "Outstanding Equity Awards at Fiscal Year-End" on page 63 in accordance with the applicable award agreements.

Named Executive Officer	By Company Without Cause	Termination in Connection with Change of Control	Death
Gerald L. Hassell			
Cash Severance(1)	$2,000,000	$16,000,000	$—
Pro-rated Bonus(1)	$8,652,000	$7,000,000	$—
Health and Welfare Benefits	$11,110	$11,110	$—
Additional Retirement Benefits(2)	$—	$—	$—
Additional Stock Award Vesting(3)	$—	$—	$—
Tax Gross-Up	$—	$—	$—
TOTAL	**$10,663,110**	**$23,011,110**	**$—**
Thomas P. "Todd" Gibbons			
Cash Severance(1)	$1,300,000	$8,285,000	$—
Pro-rated Bonus(1)	$4,316,730	$3,492,500	$—
Health and Welfare Benefits	$575	$575	$—
Additional Retirement Benefits(2)	$—	$—	$3,576,509
Additional Stock Award Vesting(3)	$4,203,931	$4,203,931	$4,203,931
Tax Gross-Up	$—	$—	$—
TOTAL	**$9,821,236**	**$15,982,006**	**$7,780,440**
Brian T. Shea			
Cash Severance(1)	$1,300,000	$8,285,000	$—
Pro-rated Bonus(1)	$4,379,595	$3,492,500	$—
Health and Welfare Benefits	$17,140	$17,140	$—
Additional Retirement Benefits(2)	$—	$—	$—
Additional Stock Award Vesting(3)	$3,860,409	$3,860,409	$3,860,409
Tax Gross-Up	$—	$—	$—
TOTAL	**$9,557,144**	**$15,655,049**	**$3,860,409**
Mitchell E. Harris			
Cash Severance(1)	$1,300,000	$9,385,000	$—
Pro-rated Bonus(1)	$3,183,469	$4,042,500	$—
Health and Welfare Benefits	$10,503	$10,503	$—
Additional Retirement Benefits(2)	$—	$—	$—
Additional Stock Award Vesting(3)	$—	$—	$—
Tax Gross-Up	$—	$—	$—
TOTAL	**$4,493,972**	**$13,438,003**	**$—**

(1) Amounts shown assume that no named executive received payment from any displacement program, supplemental unemployment plan or other separation benefit other than the executive severance plan. Amounts have been calculated in accordance with the terms of the applicable agreements. For terminations by the company without cause, amounts will be paid in installments over a two-year period following termination. For terminations in connection with a change of control, amounts will be paid in a lump sum.

(2) Amounts shown include amounts that would be payable automatically in a lump sum distribution upon death. For benefits that would not be payable automatically in a lump sum, the amount included is the present value based on the assumptions used for purposes of measuring pension obligations under FASB ASC 715 (formerly SFAS No. 87) as of December 31, 2016, including a discount rate of 4.35%. Amounts shown include only the amount by which a named executive's retirement benefit is

enhanced as a result of termination, pursuant to, where applicable, required notices given after the existence of a right to payment. Information relating to the present value, whether the amounts are paid in a lump sum or on an annual basis and the duration of each named executive's accumulated retirement benefit can be found in "Pension Benefits" on page 65 above.

(3) The value of Additional Stock Award Vesting represents the value at December 31, 2016 of all shares of restricted stock, restricted stock units (along with cash dividends accrued on the restricted stock units), and earned PSUs (along with dividend equivalents on the PSUs) that on that date were subject to service-based restrictions, which restrictions lapse on or after certain terminations of employment, including following a change of control, to the extent such restrictions would not lapse on retirement alone. Information relating to the vesting of stock awards on retirement can be found in "Retirement Benefits" on page 68 above.

Proposal

We are asking stockholders to vote in favor of advising the company to conduct a say-on-pay vote every year, at each Annual Meeting of stockholders.

Background

- Under Exchange Act rules, at least once every six years we must hold an advisory vote on whether to present to stockholders an advisory vote on executive compensation every year, every two years or every three years.
- We held our first say-on-pay vote frequency advisory vote in 2011. At the 2011 Annual Meeting, the Board recommended the option of holding an annual say-on-pay vote, and 86% of the votes cast voted in favor of holding such a vote annually.
- Our Board values continuing, constructive feedback from our stockholders on executive compensation and other important corporate governance topics. An annual vote fosters communication between our stockholders, the Board and the HRC Committee and offers a strong mechanism for stockholders to provide ongoing input on executive compensation as well as the company's compensation practices and policies. The Board believes that an annual vote has provided, and will continue to provide, valuable feedback on executive compensation. The Board further believes that an annual vote makes the most sense for the company because the HRC Committee evaluates and determines the compensation of our named executives on an annual basis.

The Board of Directors unanimously recommends that you vote

"FOR"
a vote
EVERY year.

Voting

Unlike the other proposals included on the proxy card, you have four choices as to how to vote on this proposal. You may cast your vote on your preferred voting frequency by choosing the option of one year, two years or three years or abstain from voting when you vote in response to this proposal. The option of one year, two years or three years that receives the greatest number of votes will be deemed to have received the recommendation of the stockholders.

Your vote on this resolution is an advisory vote. Although the Board is not required to take any action in response to the stockholder vote, the Board values our stockholders' opinions. As in prior years, the Board intends to consider the results of the 2017 vote carefully when making future decisions regarding how often the company should conduct a stockholder advisory vote on executive compensation.

Proposal

We are asking stockholders to ratify the Audit Committee's appointment of KPMG LLP as our independent registered public accountants for the year ending December 31, 2017.

Background

KPMG LLP or its predecessors have served as our independent registered public accounting firm since the merger in 2007 and previously served as the independent registered public accountant of Mellon since 1972. The Audit Committee and the Board believe that the continued retention of KPMG LLP to serve as independent registered public accounting firm for the 2017 fiscal year is in the best interests of the company and its stockholders.

Our Audit Committee has direct responsibility:

- For the appointment, compensation, retention and oversight of the work of our independent registered public accountants engaged to prepare an audit report or to perform other audit, review or attestation services for us.
- To negotiate and approve the audit engagement fees and terms associated with the retention of KPMG LLP.
- To annually evaluate and, as appropriate, replace KPMG LLP as our independent registered public accountant and discuss with management the timing and process for implementing the mandatory rotation of the lead engagement partner.

We expect that representatives of KPMG LLP will be present at the Annual Meeting to respond to appropriate questions, and they will have the opportunity to make a statement if they desire.

The Board of Directors unanimously recommends that you vote **"FOR" ratification of the appointment of KPMG LLP** as our independent registered public accountants for the year ending December 31, 2017.

Voting

Adoption of this proposal requires the affirmative vote of a majority of the votes cast on the proposal at the Annual Meeting by the holders of our common stock voting in person or by proxy. Unless contrary instructions are given, shares represented by proxies solicited by the Board will be voted "for" the ratification of the selection of KPMG LLP as our independent registered public accountants for the year ending December 31, 2017.

If the selection of KPMG LLP is not ratified by our stockholders, the Audit Committee will reconsider the matter. If selection of KPMG LLP is ratified, the Audit Committee in its discretion may still direct the appointment of a different independent registered public accountant at any time during the year if it determines that such a change is in our best interests.

On behalf of our Board of Directors, the Audit Committee oversees the operation of a comprehensive system of internal controls with respect to the integrity of our financial statements and reports, compliance with laws, regulations and corporate policies and the qualifications, performance and independence of our independent registered public accounting firm. The committee's function is one of oversight, since management is responsible for preparing our financial statements, and our independent registered public accountants are responsible for auditing those statements.

Accordingly, the committee has reviewed and discussed with management the audited financial statements for the year ended December 31, 2016 and management's assessment of internal control over financial reporting as of December 31, 2016. KPMG LLP issued its unqualified report on our financial statements and the operating effectiveness of our internal control over financial reporting.

The committee has also discussed with KPMG LLP the matters required to be discussed in accordance with Public Company Accounting Oversight Board Auditing Standard, Communications with Audit Committees. The committee has also received the written disclosures and the letter from KPMG LLP required by applicable requirements of the Public Company Accounting Oversight Board, which we refer to as the "PCAOB," regarding the independent accountants' communications with the Audit Committee concerning auditor independence, and has conducted a discussion with KPMG LLP regarding its independence. The committee has determined that KPMG LLP's provision of non-audit services is compatible with its independence.

Based on these reviews and discussions, the committee recommended to the Board of Directors that our audited financial statements for the year ended December 31, 2016 be included in our 2016 Annual Report on Form 10-K.

By: The Audit Committee

Joseph J. Echevarria, Chair
John A. Luke, Jr.
Jennifer B. Morgan
Mark A. Nordenberg
Catherine A. Rein
Samuel C. Scott III

Audit Fees, Audit-Related Fees, Tax Fees and All Other Fees

We have been advised by KPMG LLP that it is an independent public accounting firm registered with the PCAOB and that it complies with the auditing, quality control and independence standards and rules of the PCAOB and the SEC. The appointment of KPMG LLP as our independent registered public accounting firm for the 2016 fiscal year was ratified at our 2016 Annual Meeting. The following table reflects the fees earned by KPMG LLP for services provided to us for 2016 and 2015:

Description of Fees	Amount of Fees Paid to KPMG LLP for 2016	Amount of Fees Paid to KPMG LLP for 2015
Audit Fees(1)	$19,125,000	$17,304,000
Audit-Related Fees(2)	$17,458,000	$15,810,000
Tax Fees(3)	$2,990,000	$1,860,000
All Other Fees(4)	$68,000	$643,000
Total	**$39,641,000**	**$35,617,000**

(1) Includes fees for professional services rendered for the audit of our annual financial statements for the fiscal year (including services relating to the audit of internal control over financial reporting under the Sarbanes-Oxley Act of 2002) and for reviews of the financial statements included in our quarterly reports on Form 10-Q and for other services that only our independent registered public accountant can reasonably provide.

(2) Includes fees for services that were reasonably related to performance of the audit of the annual financial statements for the fiscal year, other than Audit Fees, such as service organization reports (under Statement on Standards for Attestation Engagements (or "SSAE") 16), employee benefit plan audits and internal control reviews.

(3) Includes fees for tax return preparation and tax planning.

(4) Includes fees for regulatory and other advisory services.

Other Services Provided by KPMG LLP

KPMG LLP also provided services to entities associated with us that were charged directly to those entities and accordingly were not included in the amounts disclosed in the table above. These amounts included $11.6 million for 2016 and $13.0 million for 2015 for the audits and tax compliance services for mutual funds, collective funds and other funds advised by us. Also excluded from the amounts disclosed in the table above are fees billed by KPMG LLP to joint ventures or equity method investments in which we have an interest of 50% or less.

Pre-Approval Policy

Our Audit Committee has established pre-approval policies and procedures applicable to all services provided by our independent registered public accountants. In accordance with SEC rules, our pre-approval policy has two different approaches to pre-approving audit and permitted non-audit services performed by our independent registered public accountants. Proposed services may be pre-approved pursuant to policies and procedures established by the Audit Committee that are detailed as to a particular class of service without consideration by the Audit Committee of the specific case-by-case services to be performed ("class pre-approval"). If a class of service has not received class pre-approval, the service will require specific pre-approval by the Audit Committee before it is provided by our independent registered public accountants ("specific pre-approval"). A list of services that has received class pre-approval from our Audit Committee (or its delegate) is attached to our Audit and Permitted Non-Audit Services Pre-Approval Policy. A copy of our Audit and Permitted Non-Audit Services Pre-Approval Policy is available on our website (see "Helpful Resources" on page 88). For 2016, all of the fees associated with the independent registered public accounting firm services were pre-approved by the Audit Committee.

Proposal and Background

The Daniel L. Altschuler 1986 Trust, 160 Riverside Drive, Apt. 9B, New York, NY 10024, the beneficial owner of 754 shares of our common stock, has given notice that it intends to introduce the following resolution at the Annual Meeting. In accordance with the applicable proxy regulations, the text of the proponent's proposal and supporting statement, for which we accept no responsibility, are set forth immediately below:

PROXY VOTING REVIEW BY BANK OF NEW YORK MELLON

Whereas: Bank of New York Mellon ("Bank") is a respected global leader in the financial services industry and rightly proud of its good governance, positive social and environmental programs and services to clients.

For example, in 2015 the Bank announced it would make available a "wide range of environmental, social and governance (ESG) data and insight to its depository bank clients", the first bank to offer this service to issuers, noting the growing momentum from investors and companies to more carefully consider the implications of ESG factors.

In a public statement before the Paris Climate conference, Bank of New York Mellon President Karen Peetz stated "Businesses, in partnership with governments, non-governmental organizations and others, have an important role to play in shaping a low-carbon future. Taking strategic action to mitigate climate change is good for our clients, our investors, our people and our world."

Bank of New York Mellon and its subsidiaries invest money on behalf of their clients and as part of their fiduciary duty are responsible for recommending votes or voting proxies in their portfolios. Proxy voting is one of the principal ways investors can communicate with companies.

The Bank's unit that provides guidance on voting proxies rightly focuses on their clients' economic interests in giving voting advice and voting proxies and actively votes on numerous governance reforms.

Yet the proxy voting record of the Bank's investment subsidiaries, guided by the Bank's recommendation and publicly reported in official N-PX forms, demonstrates a consistent vote against virtually all environmental resolutions, even when there is a strong business and economic case supporting the resolution.

Many shareholder resolutions on the topic of climate change simply ask for more disclosure or goals to reduce greenhouse gas. Funds managed by Bank of New York Mellon subsidiaries voted against virtually all these resolutions. In contrast funds managed by investment firms such as Goldman Sachs, Wells Fargo, Morgan Stanley, and Alliance Bernstein supported the majority of these resolutions and investors like State Street and TIAA voted in favor of a significant percentage of resolutions on climate.

These incongruities pose a reputational risk to the company and given the severe impacts of climate change, including significant risks to investors and the economy, there is risk to BNY Mellon and its clients if its proxy voting practices ignore climate change.

We believe Bank of New York Mellon should review and report on its proxy voting policies and record compared to the Bank's public statements on climate change.

Resolved: Shareowners request that the Board of Directors issue a report on proxy voting and climate change to shareholders prepared at reasonable cost and omitting proprietary information.

This assessment and report would review proxy votes appearing inconsistent with the company's climate change positions and scientific consensus, and provide explanations of the incongruence. The report can also review future steps to enhance congruency between climate policies and proxy voting.

Voting

Adoption of this proposal requires the affirmative vote of a majority of the votes cast on the proposal at the Annual Meeting by the holders of our common stock voting in person or by proxy. Unless contrary instructions are given, shares represented by proxies solicited by the Board will be voted "against" the stockholder proposal regarding an independent chair.

Board of Directors' Response

The Board of Directors unanimously recommends that you vote **"AGAINST" the stockholder proposal.**

After careful consideration of this proposal, we have concluded that it is not in the best interests of our stockholders. We therefore recommend that you vote AGAINST this proposal for the following reasons:

The proposal erroneously conflates BNY Mellon's position on climate change with the separate proxy voting practices of our subsidiaries that act as investment advisers. The Board must act in what it believes to be the best interests of the company and our stockholders, including appropriately addressing issues related to climate change. In this regard, we note that BNY Mellon's commitment to carbon reduction has earned the company recognition as a leader in efforts and actions to combat climate change. The company was carbon neutral in 2015 and 2016 and has a strategy in place to remain carbon neutral in 2017. The company's efforts to mitigate climate change have been widely recognized, earning us a place on CDP's Climate A List for four consecutive years, inclusion in the FTSE4Good Index for four consecutive years and inclusion in the Dow Jones Sustainability World Index for three consecutive years. We have also earned the top ranking among our peers from Bloomberg for environmental, social and governance ("ESG") disclosure.

As an entirely separate matter, our investment adviser subsidiaries ("Member Firms") have a responsibility to act in the best interests of their clients when voting proxies on behalf of those clients. That includes making their own determinations as to how to vote on environmental proposals. The stockholder proposal's recommendation that the Board intervene in oversight of the Member Firms' proxy voting would increase the company's involvement in Member Firms' proxy voting in a manner that is both significant and contrary to their obligations. If implemented, the stockholder proposal would elevate the social objectives of BNY Mellon over the obligation of the Member Firms to vote proxies based on a consideration of their clients' best interests.

Our Member Firms' proxy voting records reflects a thoughtful, case-by-case approach consistent with their fiduciary duties. For many of our Member Firms, proxy voting is assisted and guided by our Proxy Voting and Governance Committee, which has established voting guidelines designed to maximize the economic value of Member Firms' clients' securities. Under these voting guidelines, environmental proposals are reviewed on a case-by-case basis, with proxy votes generally cast for stockholder-sponsored environmental proposals when "the proposal reasonably can be expected to enhance long-term stockholder value and when management fails to respond meaningfully to the proposal." Given that our publicly disclosed voting guidelines already articulate voting policies with respect to environmental proposals and that our proxy voting record is already publicly filed with the SEC, the Board believes that no benefit would be realized from the resources that would be spent to analyze each voting decision made by our Member Firms and determine whether it was consistent with BNY Mellon's own internal position on climate change.

ADDITIONAL INFORMATION

The following table shows information relating to the number of shares authorized for issuance under our equity compensation plans as of December 31, 2016.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in second column)
Equity compensation plans			
Approved by stockholders	39,318,682(1)	$34.13	40,345,454(2)
Not approved by stockholders	109,414(3)	$36.28	—
Total	**39,428,096(4)**	**$34.14(5)**	**40,345,454**

(1) Includes 31,455,866 and 4,414,418 shares of common stock that may be issued pursuant to outstanding options, RSUs, PSUs and escrowed dividends awarded under The Bank of New York Mellon Corporation Long-Term Incentive Plan and the Mellon Long-Term Profit Incentive Plan (2004), respectively; 8,398 shares of common stock that may be issued pursuant to outstanding director deferred share units under the Mellon Director Equity Plan (2006); 3,426,764 shares of common stock that may be issued pursuant to outstanding stock-based awards under the legacy Bank of New York Long-Term Incentive Plans; and 13,236 shares of common stock that may be issued pursuant to outstanding stock options under The Bank of New York Mellon Corporation Employee Stock Purchase Plan. The number of shares of common stock that may be issued pursuant to outstanding unearned PSUs reflects the target payout. At maximum payout, the number of shares would increase by 214,867. For additional information about how PSUs are earned, see "Compensation Discussion and Analysis — Compensation of Named Executives — Outstanding PSUs" on page 49 above.

(2) Includes 6,062,041 shares of common stock that remain available for issuance under The Bank of New York Mellon Corporation Employee Stock Purchase Plan and 34,283,413 shares of common stock that remain available for issuance under The Bank of New York Mellon Corporation Long-Term Incentive Plan, 19,569,848 of which may be granted as restricted stock or RSUs (or other full value awards), and any full-value awards from the remaining 14,713,565 shares will continue to be counted as 2.75 shares against such remaining shares.

(3) Includes 4,000 shares of common stock that may be issued pursuant to options outstanding under the Mellon Stock Option Plan for Affiliate Boards of Directors. The Mellon Stock Option Plan for Affiliate Boards of Directors, which we assumed in the merger and refer to as the "Affiliate Board Plan," provided for grants of stock options to the non-employee members of affiliate boards who were not also members of Mellon's Board of Directors. No grants were available to Mellon employees under these plans. The timing, amounts, recipients and other terms of the option grants were determined by the terms of the option plans for Mellon's Board of Directors and no person or committee had discretion over these grants. The exercise price of the options is equal to the fair market value of Mellon's common stock on the grant date. All options have a term of 10 years from the regular date of grant and become exercisable one year from the regular grant date. Directors elected during the service year were granted options on a pro rata basis to those granted to the directors at the start of the service year. No further grants are being made under the Affiliate Board Plan, although the practice was continued through 2009 by issuing grants under The Bank of New York Mellon Corporation Long-Term Incentive Plan.

Also includes shares of common stock that may be issued pursuant to deferrals under the Bank of New York Directors Plan, which is described in further detail in "Director Compensation" on page 31 above.

(4) The weighted average term for the expiration of outstanding stock options under our equity compensation plans is 2.8 years.

(5) This weighted-average exercise price relates only to the options described in footnote 1. Shares underlying RSUs, PSUs and deferred share units are deliverable without the payment of any consideration, and therefore these awards have not been taken into account in calculating the weighted-average exercise price.

Beneficial Ownership of Shares by Holders of More Than 5% of Outstanding Stock

As of February 10, 2017, we had 1,035,635,254 shares of common stock outstanding. Based on filings made under Section 13(d) and 13(g) of the Exchange Act reporting ownership of shares and percent of class as of December 31, 2016, as of February 10, 2017, the only persons known by us to be beneficial owners of more than 5% of our common stock were as follows:

Name and Address of Beneficial Owner	Shares of Common Stock Beneficially Owned	Percent of Class
The Vanguard Group(1) 100 Vanguard Blvd. Malvern, PA 19355	64,443,569	6.09%
BlackRock, Inc.(2) 55 East 52nd Street New York, NY 10055	59,139,269	5.6%
T. Rowe Price Associates, Inc.(3) 100 E. Pratt Street Baltimore, MD 21202	58,289,964	5.5%

(1) Based on a review of the Schedule 13G filed on February 10, 2017 by The Vanguard Group. The Schedule 13G discloses that The Vanguard Group had sole voting power as to 1,670,876 shares, shared voting power as to 191,839 shares, sole dispositive power as to 62.589.046 shares and shared dispositive power as to 1,854,523 shares.

(2) Based on a review of the Schedule 13G filed on January 30, 2017 by BlackRock, Inc. The Schedule 13G discloses that BlackRock, Inc. had sole voting power as to 49,367,660 shares, shared voting power as to 35,150 shares, sole dispositive power as to 59,104,119 shares and shared dispositive power as to 35,150 shares.

(3) Based on a review of the Schedule 13G filed on February 6, 2017 by T. Rowe Price Associates, Inc. The Schedule 13G discloses that T. Rowe Price Associates, Inc. had sole voting power as to 17,993,482 shares and sole dispositive power as to 58,208,764 shares.

We and our affiliates engage in ordinary course brokerage, asset management or other transactions or arrangements with, and may provide ordinary course financial services to, holders of 5% or more of our outstanding common stock, including asset servicing, clearing, issuer services, treasury services, global markets, broker-dealer, liquidity investment and credit services. These transactions are negotiated on an arm's-length basis and contain terms and conditions that are substantially similar to those offered to other customers under similar circumstances.

Beneficial Ownership of Shares by Directors and Executive Officers

The table below sets forth the number of shares of our common stock beneficially owned as of the close of business on February 10, 2017 by each director, each individual included in the "Summary Compensation Table" on page 60 above and our current directors and executive officers as a group, based on information furnished by each person. Except as otherwise indicated, sole voting and sole investment power with respect to the shares shown in the table below are held either by the individual alone or by the individual together with his or her immediate family. Each of our directors and executive officers is subject to our robust anti-hedging policy, which is described above under "Compensation Discussion and Analysis — Anti-Hedging Policy" on page 55.

Beneficial Owners	Shares of Common Stock Beneficially Owned(1)(2)
Curtis Y. Arledge	270,464
Linda Z. Cook	0
Nicholas M. Donofrio	64,842
Joseph J. Echevarria	15,372
Edward P. Garden	32,372,709(3)
Thomas P. "Todd" Gibbons	931,773(4)
Jeffrey A. Goldstein	20,332
Mitchell E. Harris	198,077

Beneficial Owners	Shares of Common Stock Beneficially Owned(1)(2)
Gerald L. Hassell	2,523,873(5)
John M. Hinshaw	14,145
Edmund F. "Ted" Kelley	45,807
John A. Luke, Jr.	63,932
Jennifer B. Morgan	416
Mark A. Nordenberg	42,892
Karen B. Peetz	157,229
Catherine A. Rein	134,374
Elizabeth E. Robinson	0
Samuel C. Scott III	55,836
Brian T. Shea	268,091
All current directors and executive officers, as a group (22 persons)	**37,084,202**

(1) On February 10, 2017, none of the individuals named in the above table beneficially owned more than 1% of our outstanding shares of common stock, other than Mr. Garden, who may be deemed to hold approximately 3.1% of our outstanding shares as a result of his affiliation with Trian (see footnote 3 below). Including shares held by Trian, all current directors and executive officers as a group beneficially owned approximately 3.6% of our outstanding stock on February 10, 2017.

(2) Includes the following amounts of common stock which the indicated individuals and group have the right to acquire under our equity plans and deferred compensation plans within 60 days of February 10, 2017: Mr. Arledge, 168,732; Mr. Donofrio, 18,153; Mr. Echevarria, 15,372; Mr. Garden, 6,380; Mr. Gibbons, 622,987; Mr. Goldstein, 20,332; Mr. Harris, 102,403; Mr. Hassell, 1,670,853; Mr. Hinshaw, 638; Mr. Kelly, 41,373; Mr. Luke, 36,230; Mr. Nordenberg, 41,373; Ms. Peetz, 71,503; Ms. Rein, 33,399; Mr. Scott, 51,874; Mr. Shea, 77,268; and current directors and executive officers as a group, 2,862,621.

Also includes the following additional number of RSUs, deferred share units and phantom stock: Mr. Arledge, 101,732; Mr. Donofrio, 46,688; Mr. Gibbons, 67,933; Mr. Harris, 51,733; Mr. Hassell, 226,447; Mr. Hinshaw, 13,507; Ms. Morgan, 416; Ms. Peetz, 49,363; Ms. Rein, 64,452; Mr. Shea, 67,635; and current directors and executive officers as a group, 677,305. These individuals do not have voting or investment power with respect to the underlying shares, nor the right to acquire the underlying shares within 60 days of February 10, 2017.

(3) Includes 32,366,329 shares owned by the Trian Entities (as defined below). Trian, an institutional investment manager, serves as the management company for Trian Partners, L.P., Trian Partners Master Fund, L.P., Trian Partners Master Fund (ERISA), L.P., Trian Partners Parallel Fund I, L.P., Trian Partners Strategic Investment Fund II, L.P., Trian Partners Strategic Investment Fund-A, L.P., Trian Partners Strategic Investment Fund-D, L.P., Trian Partners Strategic Investment Fund-N, L.P., Trian Partners Fund (Sub)-G, L.P., Trian Partners Strategic Fund-G II, L.P., Trian Partners Strategic Fund-G III, L.P., Trian Partners Strategic Fund-K, L.P. and Trian SPV (SUB) IX, L.P. (collectively, the "Trian Entities") and as such determines the investment and voting decisions of the Trian Entities with respect to the shares of the company held by them. None of such shares are held directly by Mr. Garden. Of such shares, approximately 28.8 million shares are currently held in the ordinary course of business with other investment securities owned by the Trian Entities in co-mingled margin accounts with a prime broker, which prime broker may, from time to time, extend margin credit to certain Trian Entities, subject to applicable federal margin regulations, stock exchange rules and credit policies. Mr. Garden is a member of Trian Fund Management GP, LLC, which is the general partner of Trian, and therefore is in a position to determine the investment and voting decisions made by Trian on behalf of the Trian Entities. Accordingly, Mr. Garden may be deemed to indirectly beneficially own (as that term is defined in Rule 13d-3 under the Exchange Act) the shares owned by the Trian Entities. Mr. Garden disclaims beneficial ownership of such shares for all other purposes.

(4) Includes 29,217 shares held by Mr. Gibbons' children.

(5) Includes 56,604 shares held by Mr. Hassell's spouse, as to which Mr. Hassell disclaims beneficial ownership. Also includes 44,280 shares over which Mr. Hassell exercises investment discretion held in trusts.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors and executive officers and any beneficial owner of more than 10% of any class of our equity securities to file with the SEC initial reports of beneficial ownership and reports of changes in ownership of any of our securities. These reports are made on documents referred to as Forms 3, 4 and 5. Our directors and executive officers must also provide us with copies of these reports. We have reviewed the copies of the reports that we have received and written representations from the individuals required to file the reports. Based on this review, we believe that during 2016 each of our directors and executive officers timely complied with applicable reporting requirements for transactions in our equity securities.

The Board of Directors is soliciting your proxy for our 2017 Annual Meeting of stockholders and any adjournment of the meeting, for the purposes set forth in the Notice of Annual Meeting.

Q: Who Can Attend The Annual Meeting? How Do I Attend?

A: Only stockholders as of the record date have a right to attend the Annual Meeting. If you plan to attend the Annual Meeting in person, we ask that you also complete and return the reservation form attached to the end of this proxy statement. In order to be admitted to the annual meeting, you will need to present a government-issued photo identification (such as a driver's license or passport) and, if you are not a "record holder" on the company's books, evidence of ownership of our common stock as of the record date (such as a brokerage account statement). If you are representing an entity that is a stockholder, you must also present documentation showing your authority to attend and act on behalf of the entity (such as a power of attorney, written proxy to vote or letter of authorization on the entity's letterhead). We reserve the right to limit the number of representatives for any entity that may be admitted to the meeting. **No cameras, recording equipment, large bags or packages will be permitted in the Annual Meeting. The use of cell phones, smart phones, tablets and other personal communication devices for any reason during the Annual Meeting is strictly prohibited.**

Q: Who Can Vote At The Annual Meeting?

A: Only stockholders of record of our common stock at the close of business on February 10, 2017 (the "record date") may vote at the Annual Meeting. On the record date, we had 1,035,635,254 shares of common stock outstanding. You are entitled to one vote for each share of common stock that you owned on the record date. The shares of common stock held in our treasury will not be voted. Your vote is important. Whether or not you plan to attend the Annual Meeting, we encourage you to vote your shares promptly.

Q: What Is A Proxy?

A: Your proxy gives us authority to vote your shares and tells us how to vote your shares at the Annual Meeting or any adjournment. Three of our employees, who are called "proxies" or "proxy holders" and are named on the proxy card, will vote your shares at the Annual Meeting according to the instructions you give on the proxy card or by telephone or over the Internet.

Q: How Do I Vote? What Are The Different Ways I Can Vote My Shares?

A: If you are a "stockholder of record" (that is, you hold your shares of our common stock in your own name), you may vote your shares by using any of the following methods. Depending on how you hold your shares, you may receive more than one proxy card.

In Person at the Annual Meeting
If you are a registered stockholder or hold a proxy from a registered stockholder (and meet other requirements as described in "Who Can Attend the Annual Meeting? How Do I Attend?" on this page 82), you may attend the Annual Meeting and vote in person by obtaining and submitting a ballot that will be provided at the meeting.

By Submitting a Proxy by Mail
To submit a proxy by mail, complete, sign, date and return the proxy card in the postage-paid envelope provided to you.

By Submitting a Proxy by Telephone
To submit a proxy by telephone, call the toll-free telephone number listed on the proxy card. The telephone voting procedures, as set forth on the proxy card, are designed to authenticate your identity, to allow you to provide your voting instructions and to confirm that your instructions have been properly recorded. If you vote by telephone, you should not return your proxy card.

By Submitting a Proxy by Internet
To submit a proxy by internet, use the internet site listed on the proxy card. The internet voting procedures, as set forth on the proxy card, are designed to authenticate your identity, to allow you to provide your voting instructions and to confirm that your instructions have been properly recorded. If you vote by internet, you should not return your proxy card.

Q: What If I Am A "Beneficial Owner?"

A: If you are a "beneficial owner," also known as a "street name" holder (that is, you hold your shares of our common stock through a broker, bank or other nominee), you will receive voting instructions (including, if your broker, bank or other nominee elects to do so, instructions on how to vote your shares by telephone or over the Internet) from the record holder, and you must follow those instructions to have your shares voted at the Annual Meeting.

Q: If I Vote By Proxy, How Will My Shares Be Voted? What If I Submit A Proxy Without Indicating How To Vote My Shares?

A: If you vote by proxy through mail, telephone or over the Internet, your shares will be voted in accordance with your instructions. If you sign, date and return your proxy card without indicating how you want to vote your shares, the proxy holders will vote your shares in accordance with the following recommendations of the Board of Directors:

Proposal 1	**FOR** the election of each nominee for director.
Proposal 2	**FOR** the advisory resolution to approve the 2016 compensation of our named executives.
Proposal 3	**FOR** the advisory resolution to conduct a say-on-pay vote **every** year at the annual meeting of stockholders.
Proposal 4	**FOR** the ratification of the appointment of KPMG LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2017.
Proposal 5	**AGAINST** the stockholder proposal regarding a proxy voting review report.

In addition, if other matters are properly presented for voting at the Annual Meeting, the proxy holders are also authorized to vote on such matters as they shall determine in their sole discretion. As of the date of this proxy statement, we have not received notice of any other matters that may be properly presented for voting at the Annual Meeting.

Q: What If I Want To Revoke My Proxy?

A: You may revoke your proxy at any time before it is voted at the Annual Meeting by:

- delivering a written notice of revocation to our Corporate Secretary at 225 Liberty Street, New York, NY 10286;
- submitting another signed proxy card with a later date;
- submitting another proxy by telephone or over the Internet at a later date; or
- attending the Annual Meeting and voting in person.

Q: What Is A Quorum?

A: A quorum is the minimum number of shares required to conduct business at the Annual Meeting. Under our by-laws, to have a quorum, a majority of the outstanding shares of stock entitled to vote at the Annual Meeting must be represented in person or by proxy at the meeting. Abstentions and broker non-votes (as defined below) are counted as present for determining the presence of a quorum. Inspectors of election appointed for the Annual Meeting will tabulate all votes cast in person or by proxy at the Annual Meeting. In the event a quorum is not present at the Annual Meeting, we expect that the Annual Meeting will be adjourned or postponed to solicit additional proxies.

Q: What Vote Is Required For Approval Of A Proposal At The Annual Meeting?

A: Our by-laws provide for a majority vote standard in an uncontested election of directors, such as this year's election. Accordingly, each of the 13 nominees for director will be elected if more votes are cast "for" a director's election than are cast "against" such director's election, as discussed further under "Majority Voting Standard" on page 17 above. All other matters to be voted on at the Annual Meeting require the favorable vote of a majority of the votes cast on the applicable matter at the meeting, in person or by proxy, for approval.

Abstentions and broker non-votes are not treated as votes cast, will not have the effect of a vote for or against a proposal or for or against a director's election, and will not be counted in determining the number of votes required for approval or election.

Q: What If I Hold My Shares Through A Broker?

A: If your shares are held through a broker, the broker will ask you how you want your shares to be voted. If you give the broker instructions, your shares will be voted as you direct. If you do not give instructions, one of two things can happen, depending on the type of proposal. For the ratification of the auditor (Proposal 4), the broker may vote your shares in its discretion. For all other proposals, the broker may not vote your shares at all if you do not give instructions (this is referred to as a "broker non-vote").

Stockholder Proposals for 2018 Annual Meeting

Stockholder proposals intended to be included in our proxy statement and voted on at our 2018 Annual Meeting of stockholders (other than proxy access nominations) must be received at our offices at 225 Liberty Street, New York, NY 10286, Attention: Corporate Secretary, on or before November 10, 2017. Stockholders who wish to submit a proxy access nomination for inclusion in our proxy statement in connection with our 2018 Annual Meeting of Stockholders may do so by submitting a nomination in compliance with the procedures and along with the other information required by our by-laws to 225 Liberty Street, New York, NY 10286, Attention: Corporate Secretary, no earlier than October 11, 2017 and no later than November 10, 2017. Applicable SEC rules and regulations and the provisions of our by-laws govern the submission, and our consideration, of stockholder proposals or proxy access candidates for inclusion in the 2018 Annual Meeting proxy statement and form of proxy.

Pursuant to our by-laws, in order for any business not included in the notice of meeting for the 2018 Annual Meeting to be brought before the meeting by a stockholder entitled to vote at the meeting (including nominations of candidates for director), the stockholder must give timely written notice of that business to our Corporate Secretary. To be timely, the notice must not be received any earlier than November 10, 2017 (at least 120 days prior to March 10, 2018), nor any later than December 10, 2017 (90 days prior to March 10, 2018). The notice also must contain the information required by our by-laws. The foregoing by-law provisions do not affect a stockholder's ability to request inclusion of a proposal in our proxy statement within the procedures and deadlines set forth in Rule 14a-8 of the SEC's proxy rules and referred to in the paragraph above. A proxy may confer discretionary authority to vote on any matter at a meeting if we do not receive notice of the matter within the timeframes described above. A copy of our by-laws is available upon request to: The Bank of New York Mellon Corporation, 225 Liberty Street, New York, NY 10286, Attention: Corporate Secretary. The officer presiding at the meeting may exclude matters that are not properly presented in accordance with these requirements.

Corporate Governance Guidelines and Codes of Conduct

Our Board of Directors has adopted Corporate Governance Guidelines covering, among other things, the duties and responsibilities and independence of our directors. The Corporate Governance Guidelines cover a number of other matters, including the Board's role in overseeing executive compensation, compensation and expenses for independent directors, communications between stockholders and directors, the role of our Lead Director, and Board committee structures and assignments.

Our Board of Directors also has adopted a Code of Conduct, which applies to all of our employees, to provide a framework to maintain the highest standards of professional conduct for the company, and a Code of Conduct for directors of the company to provide guidance to our directors to help them recognize and deal with ethical issues, provide mechanisms to report possible unethical conduct and foster a culture of honesty and accountability.

Our Corporate Governance Guidelines, Code of Conduct and Directors' Code of Conduct are available on our website (see "Helpful Resources" on page 90). We intend to disclose any amendments to, or waivers from, our Code of Conduct or our Directors' Code of Conduct for executive officers and directors, respectively, by posting such information on our website.

Business Relationships and Related Party Transactions Policy

The Board has adopted a policy on related party transactions (our "related party transactions policy") which was reviewed by the CG&N Committee. Our related party transactions policy provides that the CG&N Committee, or another Board committee consisting solely of independent directors, must approve any transaction(s) in which we or any of our subsidiaries was, is or will be a participant and where the amount involved exceeds $120,000, and in which any "related person" had, has or will have a direct or indirect material interest, such transactions constituting disclosable related party transactions under SEC rules. A "related person" includes directors, nominees for director, executive officers, greater than 5% beneficial owners, members of such persons' immediate families and any firm, corporation or other entity in which any of the foregoing persons is employed as a general partner or principal or in a similar position or in which such person and all other related persons has a 10% or greater beneficial interest. Consistent with SEC rules, our related party transactions policy provides that certain transactions, including employment relationships and ordinary course non-preferential transactions, entered into with a related person, are not considered to be related party transactions and are not required to be disclosed or approved by the CG&N Committee. In 2016, there were no related party transactions that required CG&N Committee approval or disclosure in this proxy statement.

In the ordinary course of business, we periodically have, and expect to continue to have, banking and other transactions, including asset management services, banking services, broker services and credit services, with related persons. Any loans to related persons, and any transactions involving financial products and services provided by the company to such persons and entities, are made in the ordinary course of business, on substantially the same terms, including interest rates and collateral (where applicable), as those prevailing at the time for comparable transactions with persons and entities not related to the company, and do not involve more than the normal risk of collectability or present other unfavorable features.

Our related party transactions policy provides that the CG&N Committee may recommend to our Board from time to time adoption of resolutions pre-approving certain types or categories of transactions that the CG&N Committee determines in good faith are in, or are not inconsistent with, our best interests and the best interests of our stockholders. The Board has adopted a resolution pre-approving transactions that involve the sale or other provision of products and services (not subject to Regulation O or other specific regulatory requirements) by our company or its subsidiaries to directors and members of their immediate family, director-related companies, executive officers and members of their immediate family and beneficial owners of more than 5% of our common stock in the ordinary course and on terms generally offered in transactions with non-related persons. Transactions subject to Regulation O or other specific regulatory requirements are approved as required in such regulations.

Under the related party transactions policy, in making its determination to approve a disclosable related party transaction, the CG&N Committee may take into consideration all relevant facts and circumstances available to it, including but not limited to:

- the related person's relationship to us and interest in the transaction;
- the material facts of the transaction, including the amount involved;
- the benefits to us of the transaction;
- the availability from other sources of comparable products or services; and
- an assessment of whether the transaction is on terms that are comparable to the terms available to or from an unrelated third party or to employees generally.

The CG&N Committee also may consider the impact on a director's independence in the event the related person is a director, an immediate family member of a director or a director-related company.

Under the related party transactions policy, no member of the CG&N Committee may participate in the review, consideration, approval or ratification of any disclosable related party transaction with respect to which such member or any of his or her immediate family members or director-related company is the related person. The CG&N Committee may approve only those disclosable related party transactions that are in, or are not inconsistent with, our best interests and the best interests of our stockholders, as the CG&N Committee determines in good faith.

Under the related party transactions policy, if a disclosable related party transaction is identified after it is already ongoing or completed, it must be submitted to the CG&N Committee promptly for ratification, applying the standards described above. In this circumstance, the CG&N Committee will evaluate all options available, including ratification, amendment, termination or rescission of the transaction.

Our related party transactions policy does not limit or affect the application of our other policies applicable to our directors, executive officers and other related persons, including our Codes of Conduct.

How Our Board Solicits Proxies; Expenses of Solicitation

We will pay all costs of soliciting proxies. We have retained Georgeson Inc. to assist with the solicitation of proxies for a fee of approximately $17,500, plus reimbursement of reasonable out-of-pocket expenses. In addition, we have agreed to pay Computershare a fee of approximately $45,000 in connection with project management and technical services relating to the distribution of this proxy statement and the Annual Report to employees and former employees participating in employee benefit and stock option programs. In addition, we may use our officers and employees, at no additional compensation, to solicit proxies either personally or by telephone, Internet, letter or facsimile.

Householding

To reduce the expense of delivering duplicate proxy materials to our stockholders, we are relying on SEC rules that permit us to deliver only one proxy statement to multiple stockholders who share an address unless we receive contrary instructions from any stockholder at that address. This practice, known as "householding," reduces duplicate mailings, saves printing and postage costs as well as natural resources and will not affect dividend check mailings. If you wish to receive a separate copy of the Annual Report or proxy statement, or if you wish to receive separate copies of future Annual Reports or proxy statements, please contact our transfer agent, Computershare, by phone at 1-800-729-9606 (U.S.) or 1-201-680-6651 (International) or by mail at Computershare, P.O. Box 30170, College Station, TX 77842. We will deliver the requested documents promptly upon your request.

If you and other stockholders of record with whom you share an address currently receive multiple copies of annual reports or proxy statements, or if you hold our stock in more than one account and, in either case, you wish to receive only a single copy of the Annual Report or proxy statement, please contact our transfer agent, Computershare, with the names in which all accounts are registered and the name of the account for which you wish to receive mailings.

Other Business

As of the date of this proxy statement, we do not know of any other matters that may be presented for action at the meeting. Should any other business properly come before the meeting, the persons named on the enclosed proxy will, as stated therein, have discretionary authority to vote the shares represented by such proxy in accordance with their best judgment.

March 10, 2017

By Order of the Board of Directors,

Craig T. Beazer
Corporate Secretary

Annual Meeting

2017 Proxy Statement	http://www.envisionreports.com/bk
2016 Annual Meeting Voting Results	https://www.bnymellon.com/us/en/investor-relations/annual-meeting-voting-results-2016.jsp

Corporate Governance

By-laws	https://www.bnymellon.com/_global-assets/pdf/corporate-governance/the-bank-of-new-york-mellon-corporation-amended-and-restated-by-laws.pdf
Committee Charters	https://www.bnymellon.com/us/en/investor-relations/index.jsp
Corporate Governance Guidelines	https://www.bnymellon.com/us/en/investor-relations/index.jsp
Contacting the Board	https://www.bnymellon.com/us/en/investor-relations/index.jsp
Code of Conduct	https://www.bnymellon.com/ethics/codeofconduct.pdf
Directors' Code of Conduct	https://www.bnymellon.com/governance/directorscodeofconduct.pdf
Audit and Permitted Non-Audit Services Pre-Approval Policy	https://www.bnymellon.com/governance/auditpolicy.pdf

The Bank of New York Mellon Corporation

Corporate Website	https://www.bnymellon.com
2016 Annual Report	https://www.bnymellon.com/us/en/investor-relations/annual-report-2016.jsp
SEC Filings	http://phx.corporate-ir.net/phoenix.zhtml?c=87345&p=irol-sec
Corporate Social Responsibility Report	https://www.bnymellon.com/csr
Frequently Asked Questions	https://www.bnymellon.com/us/en/investor-relations/frequently-asked-questions.jsp
Company Profile	https://www.bnymellon.com/us/en/who-we-are/index.jsp
Our Leadership	https://www.bnymellon.com/us/en/who-we-are/leadership/index.jsp
Earnings Press Releases	https://www.bnymellon.com/us/en/investor-relations/index.jsp
Credit Ratings	https://www.bnymellon.com/us/en/investor-relations/index.jsp

ANNEX A: NON-GAAP RECONCILIATION

The following table reconciles our net income and diluted earnings per common share. These measures exclude the effects of certain items, as specified in the table. We believe that these measures are useful to investors because they permit a focus on period-to-period comparisons, which relate to the ability of BNY Mellon to enhance revenues and limit expenses in circumstances where such matters are within BNY Mellon's control.

Reconciliation of net income and diluted EPS

	Net income		Diluted EPS		
(in millions, except per common share amounts)	**2016**	**2015**	**2016**	**2015**	**Inc**
Net income applicable to common stockholders of The Bank of New York Mellon Corporation – GAAP	**$3,425**	$3,053	**$ 3.15**	$2.71	
Add: Net impact of merger and integration ("M&I"), litigation and restructuring charges	**33**	56	**0.03**	0.05	
Net (recovery) impairment charge related to Sentinel Management Group, Inc. ("Sentinel") – after-tax	**(8)**	106	**(0.01)**	0.09	
Net income applicable to common stockholders of The Bank of New York Mellon Corporation – Non-GAAP	**$3,450**	$3,215	**$ 3.17**	$2.85	**11%**

The following table presents the reconciliation of our estimated fully phased-in common equity Tier 1 ("CET1") ratio under the Advanced Approach. We believe that the CET1 ratio on a fully phased-in basis is a measure of capital strength that provides useful information to investors, supplementing the capital ratios which are, or were, required by regulatory authorities.

Estimated transitional and fully phased-in CET1 ratio

	Dec. 31, 2016	
(dollars in millions)	Transitional (GAAP)[(a)]	Fully phased-in (Non-GAAP)
Common stockholders' equity	$35,794	$35,269
Goodwill and intangible assets	(17,314)	(18,312)
Net pension fund assets	(55)	(90)
Equity method investments	(313)	(344)
Deferred tax assets	(19)	(32)
Other	0	(1)
Total CETI	$18,093	$16,490
Risk-weighted assets – Advanced Approach	$170,495	$169,227
CET1 ratio	10.6%	9.7%

(a) *Reflects transitional adjustments to CET1 required in 2016 under the U.S. capital rules.*

ANNEX A: NON-GAAP RECONCILIATION

The following table presents the reconciliation of the pre-tax operating margin ratio. This measure excludes the effects of certain items, as specified in the table. We believe that this measure is useful to investors because it permits a focus on period-to-period comparisons, which relates to the ability of BNY Mellon to enhance revenues and limit expenses in circumstances where such matters are within BNY Mellon's control.

Reconciliation of income before income taxes – pre-tax operating margin

(dollars in millions)	**2016**	**2015**
Income before income taxes – GAAP	**$ 4,725**	$ 4,235
Less: Net income attributable to noncontrolling interests of consolidated investment management funds	**10**	68
Add: Amortization of intangible assets	**237**	261
M&I, litigation and restructuring charges	**49**	85
(Recovery) impairment related to Sentinel	**(13)**	170
Income before income taxes, as adjusted – Non-GAAP[a]	**$ 4,988**	$ 4,683
Fee and other revenue – GAAP	**$12,073**	$12,082
Income from consolidated investment management funds – GAAP	**26**	86
Net interest revenue – GAAP	**3,138**	3,026
Total revenue – GAAP	**15,237**	15,194
Less: Net income attributable to noncontrolling interests of consolidated investment management funds	**10**	68
Total revenue, as adjusted – Non-GAAP[a]	**$15,227**	$15,126
Pre-tax operating margin[b]	**31%**	28%[c]
Pre-tax operating margin – Non-GAAP[a][b]	**33%**	31%[c]

(a) *Non-GAAP information for all periods presented excludes the net income attributable to noncontrolling interests of consolidated investment management funds, amortization of intangible assets and M&I, litigation and restructuring charges.*

(b) *Income before taxes divided by total revenue.*

(c) *Our GAAP earnings include tax-advantaged investments such as low income housing, renewable energy, bank-owned life insurance and tax-exempt securities. The benefits of these investments are primarily reflected in tax expense. If reported on a tax-equivalent basis, these investments would increase revenue and income before taxes by $317 million for 2016 and $242 million for 2015 and would increase our pre-tax operating margin by approximately 1.4% for 2016 and 1.1% for 2015.*

ANNEX A: NON-GAAP RECONCILIATION

The following table presents the reconciliation of operating leverage, noninterest expense and revenue. These measures exclude the effects of certain items, as specified in the table. We believe that these measures are useful to investors because they permit a focus on period-to-period comparisons, which relate to the ability of BNY Mellon to enhance revenues and limit expenses in circumstances where such matters are within BNY Mellon's control.

Pre-tax operating leverage, noninterest expense and revenue

(dollars in millions)	2016	2015	2016 vs. 2015
Total revenue – GAAP	**$15,237**	$15,194	**0.28%**
Less: Net income attributable to noncontrolling interests of consolidated investment management funds	**10**	68	
Total revenue, as adjusted – Non-GAAP	**$15,227**	$15,126	**0.67%**
Total noninterest expense – GAAP	**$10,523**	$10,799	
Less: Amortization of intangible assets	**237**	261	
M&I, litigation and restructuring charges	**49**	85	
Total noninterest expense, as adjusted – Non-GAAP	**$10,237**	$10,453	**(2.07)%**
Operating leverage – GAAP[a]			**284 bps**
Adjusted operating leverage, as adjusted – Non-GAAP[a][b]			**274 bps**

(a) *Operating leverage is the rate of increase (decrease) in total revenue less the rate of increase (decrease) in total noninterest expense.*

(b) *Non-GAAP operating leverage for all periods presented excludes the net income attributable to noncontrolling interests of consolidated investment management funds, amortization of intangible assets and M&I, litigation and restructuring charges.*

ANNEX A: NON-GAAP RECONCILIATION

The following table presents the reconciliation of the returns on common equity and tangible common equity. The tangible common equity ratio includes changes in investment securities valuations which are reflected in total stockholders' equity. In addition, this ratio is expressed as a percentage of the actual book value of assets, as opposed to a percentage of a risk-based reduced value established in accordance with regulatory requirements, although BNY Mellon in its reconciliation has excluded certain assets which are given a zero percent risk-weighting for regulatory purposes and the assets of consolidated investment management funds to which BNY Mellon has limited economic exposure. Further, we believe that the return on tangible common equity measure is a useful additional measure for investors because it presents a measure of those assets that can generate income.

Return on common equity and tangible common equity

(dollars in millions)	**2016**	**2015**
Net income applicable to common stockholders of The Bank of New York Mellon Corporation – GAAP	**$ 3,425**	$ 3,053
Add: Amortization of intangible assets	**237**	261
Less: Tax impact of amortization of intangible assets	**81**	89
Adjusted net income applicable to common stockholders of The Bank of New York Mellon Corporation – Non-GAAP	**$ 3,581**	$ 3,225
Add: M&I, litigation and restructuring charges	**49**	85
(Recovery) impairment charge related to Sentinel	**(13)**	170
Less: Tax impact of M&I, litigation and restructuring charges	**16**	29
Tax impact of (recovery) impairment charge related to Sentinel	**(5)**	64
Adjusted net income applicable to common stockholders of The Bank of New York Mellon Corporation, as adjusted – Non-GAAP[(a)]	**$ 3,606**	$ 3,387
Average common stockholders' equity	**$ 35,504**	$35,564
Less: Average goodwill	**17,497**	17,731
Average intangible assets	**3,737**	3,992
Add: Deferred tax liability – tax deductible goodwill[(b)]	**1,497**	1,401
Deferred tax liability – intangible assets[(b)]	**1,105**	1,148
Average tangible common stockholders' equity – Non-GAAP	**$(18,632)**	$16,390
Return on common equity – GAAP	**9.6%**	8.6%
Adjusted return on common equity – Non-GAAP[(a)]	**10.2%**	9.5%
Return on tangible common equity – Non-GAAP	**21.2%**	19.7%
Adjusted return on tangible common equity – Non-GAAP[(a)]	**21.4%**	20.7%

(a) *Non-GAAP information for all periods presented excludes the amortization of intangible assets and M&I, litigation and restructuring charges. Non-GAAP information also excludes the (recovery) impairment charge related to the Sentinel loan.*

(b) Deferred tax liabilities are based on fully phased-in Basel III rules.

Corporate Social Responsibility

Invested in Market Integrity

Stable, well-functioning markets help communities around the world grow and thrive. As a major global financial institution, we have a critical role to play in contributing to market integrity. We continually innovate to make our business stronger, more efficient and more responsible.

Invested in Our People

A company is as good as its people. Among our global workforce, over 50,000 strong, are some of the sharpest minds and most innovative professionals in the investment industry. We start with a diverse and inclusive range of individuals and then invest in their talents to their fullest potential.

Invested in Our World

Invested in the world means to be invested in our individual communities all around the world. With our vast global scope and operations in over 100 markets, BNY Mellon is an integral part of many communities. Our commitment to human rights, the environment and overall community well-being is an essential part of who we are and how we do business.

Cut here ✂ ....

Reservation Form for The Bank of New York Mellon Corporation Annual Meeting of Stockholders

Stockholders who expect to attend the Annual Meeting at 9:00 a.m. on April 11, 2017 at 101 Barclay Street in New York, NY should complete this form and return it to the Office of the Corporate Secretary, The Bank of New York Mellon Corporation, 225 Liberty Street, New York, NY 10286. Admission cards will be provided at the check-in desk at the meeting (please be prepared to show proof of identification). **Stockholders holding stock in brokerage accounts will need to bring a copy of a brokerage statement reflecting The Bank of New York Mellon Corporation stock ownership as of the record date, which is February 10, 2017.**

Name: ______________________________
(Please Print)

Address: ______________________________
(Please Print)

BNY MELLON

The Bank of New York Mellon Corporation
225 Liberty Street
New York, NY 10286
+1 212 495 1784

www.bnymellon.com

EXHIBIT VI
BNY MELLON'S PERSONAL SECURITIES TRADING POLICY

Personal Securities Trading Policy

Compliance

I-A-045

Posting Date: November 18, 2015

Applicable to: All BNY Mellon employees

Table of Contents

A. Introduction/Purpose

Employees or other supervised persons (as defined in the Investment Advisers Act of 1940 – the "Advisers Act") of the Bank of New York Mellon Corporation and its subsidiaries (the "Company") are subject to certain laws and/or regulations governing personal securities trading, including the securities laws of various jurisdictions, Rule 204A-1 of the Advisers Act, and Rule 17j-1 of the Investment Company Act of 1940. In order to ensure that all employees' personal investments are free from conflicts of interest and are in full compliance with the laws and regulations of all jurisdictions in which the Company does business, the Company has established limitations on personal trading. This policy describes the requirements and restrictions related to personal securities transactions.

B. Applicability and Scope

All employees of the Company that are deemed to be controlled by the Company or have otherwise agreed to be bound by its provisions are subject to this policy. This includes all full-time and part-time, benefited and non-benefited, and exempt and non-exempt employees. The policy's applicability to consultants and contract or temporary employees (including interns) is determined on a case-by-case basis.

C. Policy Details/Discussion

1. General Requirements

The following general requirements apply to all employees of the Company. In addition to the below standards of conduct, employees must also comply with any additional requirements as described in the next section of this policy (See Additional Requirements).

a) Fiduciary Duty

In some circumstances, the Company and its employees may owe a fiduciary duty to a client. Among the duties that an employee owes a client when acting as a fiduciary on their behalf is not to engage in personal securities transactions that may be deemed to take inappropriate advantage of his/her position in relation to that client. You must be mindful of this obligation, use your best efforts to honor it, and report promptly to the Ethics Office and your **Compliance Officer** any Company employee that fails to meet this obligation. With respect to the potential conflicts of interest that personal securities trading activity or other actions may engender, please also refer to the Company's Code of Conduct and the policy on Business Conflicts of Interest (Corporate Policy I-A-035).

b) Protecting Material Nonpublic Information and Compliance with Securities Laws

In carrying out your job responsibilities, you must, at a minimum, comply with all applicable legal requirements and securities laws. As an employee, you may receive information about the Company, its clients, or other parties that for various reasons must be treated as confidential. With respect to these parties, you **are not** permitted to divulge to anyone (except as may be permitted by your business and in accordance with approved procedures) current portfolio positions (different rules will determine what is deemed to be "current"), current or anticipated portfolio transactions, or programs or studies of the Company or any client. You must comply with measures in place to preserve the confidentiality of information. Refer to the Company's Code of Conduct for additional guidance.

Securities laws generally prohibit the trading of securities while aware of material nonpublic information (MNPI) regarding the issuer of those securities and/or about the portfolio holdings, transactions or recommendations with respect to fiduciary accounts; this is generically known as "insider trading." Any person who passes along material nonpublic information upon which a trade is based ("tipping") may also be liable. Employees who possess material nonpublic information about an issuer of securities (whether that issuer is the Company, another company, a client or supplier, any fund or other issuer) must not trade in that issuer's securities, either for their own accounts or for any account over which they exercise investment discretion. Refer to the Company's Securities Firewalls Policy (Corporate Policy I-A-046) for guidance in determining when information is material and/or nonpublic and how to handle such information.

c) *Trading in BNY Mellon Securities*

All employees who trade in Company securities must be aware of their responsibilities to the Company and must be sensitive to even the appearance of impropriety. The following restrictions apply to all transactions in the Company's publicly traded securities, whether owned directly (i.e., in your name) or indirectly (see indirect ownership in Appendix H, Definitions).

- **Short Sales** – You are prohibited from engaging in short sales of Company securities.
- **Short-Term Trading** – You are prohibited from purchasing and selling or from selling and purchasing any Company securities within any 60 calendar day period. In addition to other potential sanctions, you will be required to disgorge any profits on such short-term trades as calculated in accordance with procedures established by the Ethics Office.
- **Margin Transactions** – You are prohibited from purchasing Company securities on margin; however, you may use Company securities to collateralize full-recourse loans for non-securities purposes or for the acquisition of securities other than those issued by the Company.
- **Option Transactions** – You are prohibited from engaging in any derivative transaction involving or having its value based upon any securities issued by the Company (or the values thereof), including the buying and writing of over-the-counter and exchange traded options.
- **Major Company Events** – You are prohibited from transacting in the Company's securities if you have knowledge of major Company events that have not been publicly announced. This prohibition expires 24 hours after a public announcement is made.

d) *Trading in Non-Company Securities*

You must be sensitive to any impropriety in connection with your personal securities transactions in securities of any issuer, including those owned indirectly (see indirect ownership in Appendix H, Definitions). You must refer to the Company's Code of Conduct for employee investment restrictions with parties that do business with the Company. In addition, you are prohibited from front running and scalping.

e) *Spread Betting*

Taking bets on securities pricing to reflect market movements activities as a mechanism for avoiding the preclearance restrictions on personal securities trading arising under the provisions of this policy is prohibited. Such transactions themselves constitute transactions in securities for the purposes of the policy and are subject to all of the provisions applicable to other non-exempted transactions.

f) *Initial Public Offerings*

You are prohibited from acquiring securities through an allocation by the underwriter of an initial public offering (IPO) without the prior approval of the Ethics Office or, in some cases, the Investment Ethics Council (IEC). Approval is only given when the allocation comes through an employee of the issuer, who has a direct family relationship to the

BNY Mellon employee. Approval may not be available to employees of registered broker-dealers due to certain laws and regulations (e.g., FINRA rules in the U.S.). If you have any questions as to whether a particular offering constitutes an IPO, consult the Ethics Office before submitting an indication of interest to purchase the security.

g) Private Placements

- **Acquisition** – You are prohibited from acquiring any security in a private placement unless you obtain prior written approval from the Ethics Office, your Compliance Officer, and the Operating Committee member who represents your business or department. In some cases, employees may be required to receive prior written approval from the IEC. In order to receive approval, employees must complete and submit to the Ethics Office the Private Placement/Volcker Covered Fund Request Form, which can be found on MySource or can be obtained by sending an email to the Securities Trading Policy Help Line at securitiestradingpolicyhelp@bnymellon.com.
- **Subsequent Actions** – Should you participate in any subsequent consideration of credit for the issuer or of an investment in the issuer for an advised account, you are required to disclose your investment to your **Compliance Officer**. The decision to transact in such securities for an advised account is subject to independent review.

h) Volcker Covered Funds

- **Acquisition** – You are prohibited from acquiring any initial or subsequent investment in a Volcker Covered Fund (the list of funds can be found at the Volcker Compliance site on MySource) unless you obtain prior written approval from the Ethics Office, your Compliance Officer, and the Operating Committee member who represents your business or department. In some cases, employees may be required to receive prior written approval from the IEC. You should be aware that under the Volcker Rule, neither you nor your immediate family, may make such an investment unless your job duties are directly related to providing investment advisory, commodity trading advisory or "other services" to the fund. In order to receive approval, employees must complete and submit to the Ethics Office the Private Placement/Volcker Covered Funds Request Form, which can be found on MySource or may be obtained by sending an email to the Securities Trading Policy Help Line at securitiestradingpolicyhelp@bnymellon.com.
- **New Employees** – Any new hire who directly or indirectly (through an immediate family member) holds an investment in a Volcker Covered Fund must receive permission to continue to hold that investment. In order to receive approval, employees must complete and submit to the Ethics Office the Private Placement/Volcker Covered Funds Request Form, which can be found on MySource or may be obtained by sending an email to the Securities Trading Policy Help Line at securitiestradingpolicyhelp@bnymellon.com. If the holding is not permitted under the Volcker Rule, the employee will be required to divest the ownership interest.

  Contact your Compliance Officer if you have questions regarding requirements related to the Volcker Rule.

2. Additional Requirements[1]

This policy imposes additional requirements and limitations on employees based on the nature of their job activities; therefore, each employee is assigned a classification. Classification assignments are the responsibility of business/functional-level compliance and business management, in consultation with the Ethics Office. The Ethics Office notifies employees of their designation into one or more of the following classifications:

Access Decision Maker (ADM) Employee*	Dreyfus/FINRA Employee*
Investment Employee*	Pre-Release Earning Group (PREG) Employee*
Insider Risk Employee*	Fund Officer*
Fund Service Employee*	**Non-Classified Employee**
Service Employee*	

3. Compliance with this Policy

Generally, as an employee of the Company, you may be held personally liable for any improper or illegal acts committed during the course of your employment; non-compliance with this policy may be deemed to encompass one of these acts. Accordingly, you must read this policy and comply with the spirit and the strict letter of its provisions. Failure to comply may result in the imposition of serious sanctions, which may include, but are not limited to, the disgorgement of profits, cancellation of trades, selling of positions, suspension of personal trading privileges, dismissal, and referral to law enforcement or regulatory agencies.

The provisions of the policy have worldwide applicability and cover trading in any part of the world, subject to the provisions of any controlling local law. To the extent any particular portion of the policy is inconsistent with, or in particular less restrictive than such laws, you must consult with the Manager of the Ethics Office.

4. Reporting Violations

To report a known or suspected violation of this policy, immediately contact the Ethics Office or your **Compliance Officer**. You may also report known or suspected violations anonymously through BNY Mellon's Ethics Help Line or Ethics Hot Line.

5. Policy Administration

Various departments, business units, teams, and employees within the Company are responsible for managing, overseeing, and/or providing support for the administration of this policy. The specific responsibilities and procedural requirements for these various administrators are described in Section D.

D. Roles and Responsibilities

1. Ethics Office

The Corporate Ethics Office, led by the Chief Compliance and Ethics Officer (CCEO), must:

- Develop, interpret and administer the Policy. (**Note**: Amendments of the policy will be made, or waivers of its terms will be granted, at the discretion of the Manager of

[1] With the exception of Non-Classified Employees, employees in all other classifications are considered to be "Monitored Employees" [**denoted by an (*)**]. Due to the nature of their job activities and in addition to the General Requirements of this policy, Monitored Employees are also subject to the requirements listed in Appendix A (Requirements for Monitored Employees). Non-Classified Employees do not have any additional requirements.

the Ethics Office only and with the concurrence of other officers or directors of the Company, where required (e.g., U.S. mutual fund directors). Any waiver or exemption must be evidenced in writing to be official.)

- Maintain the following records in a readily accessible place, for five years from their creation (unless otherwise noted below):
  - A copy of each version of the Policy, including amendments, in existence for any period of time;
  - A record of any violation of the Policy and any action taken as a result of such violation for five years from the end of the fiscal year in which the violation occurred;
  - A record of acknowledgement of receipt of the Policy by each person who currently, or at any time in the prior five years, was required to receive a copy pursuant to some law, rule, or regulation;
  - All holdings or transaction reports made pursuant to the terms of the Policy (only the past two years in a readily accessible place);
  - A list of names and designations of all employees of the company who are designated as “supervised persons” of an SEC Registered Investment Advisor;
  - A record of any decision and supporting reasons for approving the acquisition of securities by personnel subject to the Policy in limited offerings.
- Identify all **Compliance Officers** who are responsible for reviewing employee reports and other records.
- Set standards for compliance monitoring and testing of compliance with this Policy.
- Maintain electronic systems to support personal trading and ensure system enhancements are properly controlled and tested prior to implementation.
- Provide training during major acquisitions, significant system implementations or modifications.
- Use their best efforts to assure that requests for preclearance, personal securities transaction reports and reports of securities holdings are treated as “personal and confidential.” (The company may be required by law to review, retain, and in some circumstances, disclose such documents. Therefore, such documents must be available for inspection by appropriate regulatory agencies and by other parties within and outside the Company as are necessary to evaluate compliance with or sanctions under the Policy or other requirements applicable to the Company.)
- Oversee the activities of the IEC.
- Determine appropriate sanctions for Policy violations and maintain a record of all such sanctions.
- Maintain a list (the “Restricted List”) of companies whose securities employees in their line of business or firm are restricted from trading for various reasons. Such trading restrictions may be appropriate to protect the Company and its employees from potential violations, or the appearance of violations, of securities laws. This list must not be distributed outside of the Compliance Office or Ethics Office and its contents are confidential.
- Calculate and collect disgorgements of profits.
- Ensure an annual certification of compliance with the Policy is collected.
- Where agreed upon with a line of business or sector, oversee collection of reporting requirements including obtaining required securities account statements and trade transaction details, and monitoring to trading to detect violations of Policy.

- Oversee approvals of investments in initial public offerings, acquisitions of private investments, and withdrawal requests for affiliated hedge/private equity funds.
- Review account documentation to determine if an employee account can be deemed a non-discretionary (managed) account.

2. Function-Level Compliance Unit

Compliance units at the Function level, under the supervision of Business Compliance Directors, must:

- Ensure that employees are properly classified under the Policy, including consultants, independent contractors and other temporary employees.
- Provide training to employees on the Policy or various systems utilized for compliance.
- Report violations of the Policy to the Ethics Office and to the Board of Directors at the appropriate investment subsidiary, if necessary.
- Ensure data required to perform compliance monitoring (e.g., Restricted Lists, Portfolio Manager Codes, Designated Approvers) is provided to the Ethics Office.
- Oversee collection of reporting requirements including obtaining required securities account statements and trade transaction details and monitoring to trading to detect violations of Policy, unless the Ethics Office is performing those functions for the line of business.
- Oversee the timely completion of all required employee reports and certifications.
- In consultation with business management, construct and provide a list of securities appropriate for Policy restrictions.
- Approve requests for investment that have been delegated by Policy or the Ethics Office to the line of business.
- Provide timely updates to the list of Proprietary Funds (those that are advised, subadvised or underwritten by the line of business) to the Ethics Office.

3. Business Management

Management of the company's business and business partner groups will:

- Ensure that managers communicate an employee's classification under this Policy and that proper training of the Policy requirements has been provided.
- In consultation with the function-level compliance unit, construct and provide a list of securities appropriate for Policy restrictions.
- Enforce compliance with the Policy.

4. Legal Department

The Legal Department of the company has the following responsibilities:

- Provide legal analysis of new and revised legislation of all jurisdictions regarding personal securities trading laws and regulations.
- Participate in the review of Policy amendments.

5. Technology Department

The Technology Department of the company has the following responsibilities:

- Provide support for internally hosted applications to ensure systems function properly, including various files are properly loaded into the system.

- Develop an alert process to detect any failed or non-received files.
- Ensure all software updates or hardware installations are adequately tested.

6. Investment Ethics Council (IEC)

The company formed an Investment Ethics Council, which is composed of investment, legal, risk management, compliance and ethics representatives of the company and its affiliates. The IEC will:

- Approve any substantive amendments (along with appropriate concurrence of third parties) to the Policy.
- Provide interpretive guidance to the Ethics Office when requested.
- Approve/disapprove actions taken in connection with the personal trading activities of employees subject to the Policy.
- Oversee the personal trading activities of employees designated as ADM Employees.

E. Questions

Questions regarding this policy or personal securities trading must be directed to the Securities Trading Policy Help Line by phone at 1-800-963-5191 or by email at securitiestradingpolicyhelp@bnymellon.com. If calling from outside of the United States or Canada, dial the appropriate international access code and then 1-800-963-5191-2.

F. Ownership

The Ethics Office owns this policy.

G. Related Policies

- I-A-010: Code of Conduct
- I-A-035: Business Conflicts of Interest
- I-A-046: Securities Firewall Policy

H. Revision History

- November 18, 2015 (current; information classification re-labelled from “internal use only” to “public”)
- November 13, 2015 (current; updated Appendices D, G and H)
- April 27, 2015 (addition of language related to Volcker Funds)
- December 1, 2014 (reviewed and reformatted)
- November 2013

Appendix A: Requirements for Monitored Employees

In addition to the General Requirements as described in this policy, Monitored Employees (i.e., all employees excluding Non-Classified Employees) are also subject to the following requirements:

I. Monitored Personal Trading Activity

In order to ensure compliance with securities laws and to avoid even the appearance of a conflict of interest, the Ethics Office monitors the personal trading activities of Monitored Employees. Trading is monitored electronically via the Personal Trading Assistant (PTA) System. The Ethics Office will grant Monitored Employees secure access to the PTA so that they can fulfill their PTA reporting requirements as described below.

J. PTA Reporting

1. Initial Reporting

Within 10 calendar days of being assigned a classification, you must file an Initial Broker Accounts Report and an Initial Holdings Report in the PTA. The Initial Broker Accounts Report must contain a listing of all accounts that trade or are capable of trading securities (excluding exempt securities) and that are owned directly by you or of which you have indirect ownership. The Initial Holdings Report must contain a listing of all securities (excluding exempt securities) held in the aforementioned accounts and any securities (excluding exempt securities) held outside of these accounts (e.g., physical securities held in a safe deposit box, paper certificates, etc.). Both the Initial Broker Accounts Report and the Initial Holdings Report must be an accurate recording of security accounts and security holdings within the last 45 calendar days after receiving your employee classification.

***Note**:* Monitored Employees are required to report any directly- or indirectly-owned accounts that have the capability of holding securities (excluding exempt securities), regardless of what the accounts are currently holding. For example, if an account contains only exempt securities but has the capability of holding non-exempt securities, the account must be reported.

2. Annual Reporting

On an annual basis and within 30 calendar days after the end of the year, Monitored Employees are required to file an Annual Holdings Report in the PTA. The Annual Holdings Report must contain a current listing of securities (excluding exempt securities) held in all accounts that trade or are capable of trading securities (excluding exempt securities) and that are owned directly by you or of which you have indirect ownership. The Annual Holdings Report must also contain a current listing of securities (excluding exempt securities) held outside of the aforementioned accounts (e.g., physical securities held in a safe deposit box, paper certificates, etc.). The securities information included in the report must be current within 45 calendar days of the date the report is submitted. Additionally, as part of this annual reporting requirement, Monitored Employees must also certify that they have read, understand, and complied with this policy.

K. Updating PTA

1. New Accounts

Monitored Employees are responsible for adding to the PTA as soon as possible any new brokerage accounts that are opened after the Initial Broker Accounts Report has been submitted. This requirement applies to both accounts that are owned directly by you or of which you have indirect ownership.

2. Gifts and Inheritances

Monitored Employees who give or receive a gift of securities (excluding exempt securities) or receive an inheritance that includes securities (excluding exempt securities) must report the activity in the PTA within 10 calendar days. The report must disclose the name of the person receiving or giving the gift or inheritance, date of the transaction, and name of the broker through which the transaction was effected (if applicable). A gift of securities must be one where the donor does not receive anything of monetary value in return.

3. Updating Holdings

You are required to update in the PTA any changes to your securities (excluding exempt securities) holdings that occur as a result of corporate actions, dividend reinvestments, or similar activity. These adjustments must be reported as soon as possible, but no less than annually. Non-U.S.-based Monitored Employees, including Fund Service and Fund Officer Employees, are required to submit to Local Compliance, upon receipt from their broker, trade confirmations or contract notes for trades in non-exempt securities.

L. Approved Broker-Dealers

All U.S.-based Monitored Employees must maintain any directly- or indirectly-owned brokerage accounts at specific broker-dealers that have been approved by the company. Monitored Employees living outside the U.S. are not subject to this requirement. U.S.-based Monitored Employees should refer to MySource to obtain the current list of approved broker-dealers. Any exceptions to this requirement must be approved, in writing, by the Ethics Office.

M. Account Statements and Trade Confirmations

U.S.-based Monitored Employees who receive an exception to the approved broker-dealer requirement or who are in the process of moving their account(s) to an approved broker-dealer must instruct their non-approved broker-dealer, trust account manager, or other entity holding their securities to submit duplicate statements and trade confirmations directly to the company. Non-U.S.-based Monitored Employees are required to submit their trade confirmations/contract notes and account statements to their Local Compliance. This requirement applies to both directly- and indirectly-owned accounts and includes any account that has the capability of holding securities (excluding exempt securities) regardless of what the account is currently holding. For securities held outside of an account (such as those held directly with an issuer or maintained in paper certificate form), Monitored Employees must comply with the company's request to confirm transactions and holdings.

N. Classification-Specific Requirements

In addition to the General Requirements of the policy and the preceding Requirements for Monitored Employees, ADM, Investment, Insider Risk, Fund Service, Service, Fund Officer, and PREG Employees must also adhere to the requirements of their assigned classification(s). Employees should refer to Appendices B through E for the specific additional requirements of their assigned classification(s).

O. Summary

Refer to Appendix G for a summary of select policy requirements by employee classification.

Appendix B: Requirements for ADM Employees

In addition to the General Requirements of this policy and the Requirements for Monitored Employees (Appendix A), employees who are classified as ADM Employees are also subject to the following requirements:

P. Proprietary Funds

Proprietary Funds are non-exempt securities for ADM Employees. As such, ADM Employees are required to report in the PTA any Proprietary Funds held in brokerage accounts or directly with the mutual fund company. A list of Proprietary Funds is published on MySource or can be obtained by sending an email to the Securities Trading Policy Help Line at securitiestradingpolicyhelp@bnymellon.com.

Q. PTA Reporting

Quarterly Reporting

In addition to the Initial and Annual Reporting that must be completed by all Monitored Employees, ADM Employees are also subject to Quarterly Reporting. On a quarterly basis and within 30 calendar days after the end of the quarter, ADM Employees are required to file a Quarterly Transactions Report in the PTA. The Quarterly Transactions Report must contain the following:

- A listing of all transactions in securities (excluding exempt securities) that occurred throughout the most recent calendar quarter;
- A current listing of all securities accounts that trade or are capable of trading securities and that are owned directly by you or of which you have indirect ownership;
- A current listing of securities (excluding exempt securities) held in the aforementioned accounts, and;
- A current listing of securities (excluding exempt securities) held outside of the aforementioned accounts (e.g., physical securities held in a safe deposit box, paper certificates, etc.).

All reported information must be current within 45 calendar days of the date the report is submitted. Additionally, as part of this quarterly reporting requirement, employees must also certify that they have read, understand, and complied with this policy.

R. Preclearing Trades in PTA

ADM Employees are required to receive preclearance approval in PTA prior to executing trades in all securities (excluding exempt securities). ADM Employees must preclear trades in Proprietary Funds. Refer to Appendix F for trade preclearance requirements and see below for details regarding de minimis transactions and Proprietary Fund transactions in the Company's 401(k) plan.

1. De Minimis Transactions

ADM Employees will generally not be given preclearance approval to execute a transaction in any security for which there is a pending buy or sale order for an affiliated account (other than an index fund) in the business unit where the ADM Employee has access to information about pending transactions. In certain circumstances, the Preclearance Compliance Officer may approve certain de minimis transactions even when the firm is trading such securities. **Note**: Some ADM Employees who are also Portfolio Managers may not be eligible for this de minimis exemption. Questions should be directed to the Preclearance Compliance Officer or the Ethics Office.

a) Restrictions and Conditions

- Employee preclearance is required prior to executing the transaction.
- If the transaction is a 60 day trade, recognized profit disgorgement will be applicable. (Refer to Section C for information about profit disgorgement on short-term trades.)
- Preclearance Compliance Officers are limited to applying this de minimis standard to only two trades in the securities of any one issuer in each calendar month.
- Employees must cooperate with the Preclearance Compliance Officer's request to document market capitalization amounts.

b) Transaction Limits

The following transaction limit is available for this de minimis exception: The dollar value from transacting in 100 shares or $10,000 (whichever value is greater) for companies with a market capitalization of $5 billion or higher. **Note**: Currency is listed in USD. For all other countries, use the local currency's USD equivalent and/or U.S. share amount.

2. Proprietary Fund Transactions in the Company's 401(k) plan

ADM Employees are required in most situations to preclear Proprietary Fund trades. However, the treatment of Proprietary Fund trades in the company's 401(k) plan is dependent upon the type of plan.

a) Non-Self-Directed Accounts (Includes Tier 1 - LifePath Index Funds, Tier 2 - Passively Managed Index Funds, and Tier 3 - Actively Managed Funds)

The movements of balances into or out of Proprietary Funds are deemed to be purchases or redemptions of those Proprietary Funds for purposes of the holding period requirement, but are exempt from the general preclearance requirement. Accordingly, you do not need to preclear these movements, but must get prior approval from the Preclearance Compliance Officer if it is within 60 calendar days of an opposite transaction in shares of the same fund. In lieu of transaction reporting, employees are deemed to consent to the company obtaining transaction information from plan records. Such movements must be reflected in your holdings reports.

b) Self-Directed Accounts (Tier 4 – Large Selection of Mutual Funds and Exchange Traded Funds)

Treated like any other Proprietary Fund account. This means that the reporting, preclearance, and holding period requirements apply.

S. Profit Disgorgement on Short-Term Trading

Any profits recognized from purchasing then selling or selling then purchasing the same or equivalent (derivative) securities within any 60 calendar day period must be disgorged. For purposes of disgorgement, profit recognition is based upon the difference between the most recent purchase and sale prices for the most recent transactions. Accordingly, profit recognition for disgorgement purposes may differ from the capital gains calculations for tax purposes. Sixty-day transactions in securities that are exempt from preclearance and trades of Proprietary Funds held within the BNY Mellon 401(k) will not be subject to disgorgement. The disposition of any disgorged profits will be at the discretion of the company, and the employee will be responsible for any tax and related costs.

T. Initial Public Offerings

ADM Employees must obtain approval from the IEC prior to acquiring securities through an allocation by the underwriter of an initial public offering.

U. Private Placements

1. Acquisition

ADM Employees must receive approval from the IEC prior to acquiring any security in a private placement.

2. Approval Considerations

The IEC will generally not approve private placement requests in which any managed fund or account is authorized to invest within the ADM's fund complex. Also, it will not approve any investment involving a fund vehicle serviced or sponsored by BNY Mellon or one of its subsidiaries or affiliates that is a Volcker Covered Fund, unless your job duties are directly related to providing investment advisory, commodity trading advisory or "other services" to the fund, as described under the Volcker Rule. The IEC will take into account the specific facts and circumstances of the request prior to reaching a decision on whether to authorize a private placement investment. These factors include, among other things, whether the opportunity is being offered to an individual by virtue of their position with the company or its affiliates or their relationship to a managed fund or account and whether or not the investment opportunity being offered to the employee could be re-allocated to a client. ADM Employees must comply with requests for information and/or documentation necessary for the IEC to satisfy itself that no actual or potential conflict, or appearance of a conflict, exists between the proposed private placement purchase and the interests of any managed fund or account.

3. Approval to Continue to Hold Existing Investments

Within 90 days of being designated an ADM Employee, employees holding private placement securities must request and receive written authorization from the IEC to continue to hold these securities.

V. Additional Reporting Requirements for ADM Employees

ADM Employees have two additional reporting requirements. These requirements are described below. **Note**: It is an ADM Employee's responsibility to confirm with their Preclearance Compliance Officer whether he or she is required to comply with the below additional reporting requirements.

1. Special Purpose ADM Quarterly Securities Report

ADM Employees are required to submit quarterly to their Preclearance Compliance Officer the "Special Purpose ADM Quarterly Securities Report." A form for completing this report can be obtained from the Preclearance Compliance Officer, on MySource, or by emailing the Securities Trading Policy Help Line at securitiestradingpolicyhelp@bnymellon.com. This report must be submitted within 30 calendar days of each quarter's end and includes information on securities and/or transactions owned directly or indirectly. The report must contain information on:

- Securities owned at any time during the quarter, which were either recommended for a transaction or in a portfolio managed by the ADM Employee during the quarter.
- Holdings or transactions in private placements.

- Holdings in securities with a market capitalization that was equal to or less than $250 million. For all other countries, use the local currency's USD equivalent.
- **Exemption** – ADM Employees do not need to report any security that is defined as an exempt security or is otherwise expressly exempt from preclearance.

2. Contemporaneous Disclosure

Prior to an ADM Employee making or acting upon a portfolio recommendation (e.g., buy, hold, or sell) in a security directly or indirectly owned, written authorization must be obtained. The reason for disclosure is to ensure that management can consider whether the portfolio recommendation or transaction is for the purpose of affecting the value of a personal securities holding. Contemporaneous Disclosure forms can be obtained from the Preclearance Compliance Officer, on MySource, or by emailing the Securities Trading Policy Help Line at securitiestradingpolicyhelp@bnymellon.com. Under no circumstances can an ADM Employee provide portfolio recommendations or place trades based on their potential impact to his/her personal securities holdings, nor can he or she refuse to take such action to avoid submitting a Contemporaneous Disclosure. The ADM Employee's fiduciary duty to make portfolio recommendations and trades solely in the best interest of the client must always take precedence.

a) Approval

Approval must be obtained from the ADM Employee's CIO or CEO, or their designee, prior to the first such portfolio recommendation or transaction in a particular security in a calendar month. Disclosure forms for subsequent transactions in the same security are not required for the remainder of the calendar month so long as purchases/sells in all portfolios do not exceed the maximum number of shares, options, or bonds disclosed on the disclosure form. If the ADM Employee seeks to effect a transaction or makes a recommendation in a direction opposite of the most recent disclosure form, a new disclosure form must be completed prior to the transaction or recommendation.

b) Exemption to the Contemporaneous Disclosure Requirement

- ADM Employees who are index fund managers and have no investment discretion in replicating an index model or clone portfolio do not need to comply with this disclosure requirement. This exemption does not apply in the following circumstances:
  - If the ADM Employee recommends a security that is not in the clone or model portfolio or recommends a model or clone security in a different percentage than the model or clone amounts.
  - If the ADM Employee recommends individual securities to clients, even if the company shares control of the investment process with other parties.

c) Securities Exempt from Reporting

Certain securities are exempt from the requirement to submit a Contemporaneous Disclosure. They are:

- Exempt securities as defined in Definitions.
- Holdings of debt securities, which do not have a conversion feature and are rated investment grade or better by a nationally recognized statistical rating organization or unrated, but of comparable quality.
- Holdings of equity securities of the following:
  - In the U.S., the top 200 issuers on the Russell list and other companies with a market capitalization of $20 billion or higher.
  - In the U.K., the top 100 companies on the FTSE All Share Index and other companies with a market capitalization of the £ USD equivalent.

- In Japan, the top 100 companies of the TOPIX and other companies with a market capitalization of the ¥ USD equivalent.
- In Brazil, companies on the IBr-X and other companies with a market capitalization of the R USD equivalent.

W. Restrictions for ADM Employees

7 Day Blackout Period

- **Prohibition**

  It is impermissible for an ADM Employee to buy or sell a security (owned directly or indirectly) within 7 calendar days before and 7 calendar days after their investment company or managed account has effected a transaction in that security. This is known as the “7 Day Blackout Period.”

- **Disgorgement Required**

  If an ADM Employee initiates a transaction within the 7 Day Blackout Period, in addition to being subject to sanctions for violating the Policy, profits recognized from the transaction must be disgorged in accordance with guidance provided by the IEC. The IEC has determined that the following transactions will not be subject to this disgorgement requirement:

  - In the U.S., the dollar value from transacting in 100 shares or $10,000 (whichever value is greater) for companies with a market capitalization of $5 billion or higher.
  - In all other countries, the greater of the USD equivalent or 100 shares for companies with a USD equivalent market capitalization.

- **Exemption**

  Portfolio Managers who manage broad-based index funds, which replicate exactly, a clone, or model, are exempt from the 7 Day Blackout Period.

X. Additional Requirements for Micro-Cap ADM (MCADM) Employees ONLY

1. Transactions and Holdings in Micro-Cap Securities

In recognition of the potential for price volatility in micro-cap securities, the company requires that approvals be obtained prior to a MCADM Employee placing a trade in their direct and indirectly owned accounts. The market capitalization approval thresholds are listed below. **Note**: Currency is listed in USD. For all other countries, use the local currency’s USD equivalent.

- **Threshold 1**

  Without the prior written approval of the IEC, MCADM Employees may not trade the securities of companies with a market capitalization of $100 million or less.

- **Threshold 2**

  Without the prior written approval of the immediate supervisor and the Chief Investment Officer (CIO), MCADM Employees may not trade the securities of companies with a market capitalization that is more than $100 million but less than or equal to $250 million.

- **Exemption**

  Micro-cap securities acquired involuntarily (e.g., inheritance, gift, spin-off, etc.) are exempt from these above restrictions; however, they must be disclosed in a memo to the Preclearance Compliance Officer within 10 calendar days of the involuntary acquisition.

2. Requirement for Newly Designated MCADM Employees

Newly designated MCADM Employees must obtain the approval of the CIO or Chief Executive Officer and provide a copy of the approval to the Preclearance Compliance Officer to continue holding micro-cap securities with a market capitalization equal to or less than $250 million. For all other countries, use the local currency’s USD equivalent.

Appendix C: Additional Requirements for Investment Employees

In addition to the General Requirements of this policy and the Requirements for Monitored Employees (Appendix A), employees who are classified as Investment Employees are also subject to the following requirements:

Y. Proprietary Funds

Proprietary Funds are non-exempt securities for Investment Employees. As such, Investment Employees are required to report in the PTA any Proprietary Funds held in brokerage accounts or directly with the mutual fund company. A list of Proprietary Funds is published on MySource or can be obtained by sending an email to the Securities Trading Policy Help Line at securitiestradingpolicyhelp@bnymellon.com.

Z. PTA Reporting

Quarterly Reporting

In addition to the Initial and Annual Reporting that must be completed by all Monitored Employees, Investment Employees are also subject to Quarterly Reporting. On a quarterly basis and within 30 calendar days after the end of the quarter, Investment Employees are required to file a Quarterly Transactions Report in the PTA. The Quarterly Transactions Report must contain the following:

- A listing of all transactions in securities (excluding exempt securities) that occurred throughout the most recent calendar quarter;
- A current listing of all securities accounts that trade or are capable of trading securities and that are owned directly by you or of which you have indirect ownership;
- A current listing of securities (excluding exempt securities) held in the aforementioned accounts, and;
- A current listing of securities (excluding exempt securities) held outside of the aforementioned accounts (e.g., physical securities held in a safe deposit box, paper certificates, etc.).

All reported information must be current within 45 calendar days of the date the report is submitted. Additionally, as part of this quarterly reporting requirement, employees must also certify that they have read, understand, and complied with this policy.

AA. Preclearing Trades in PTA

Investment Employees are required to receive preclearance approval in PTA prior to executing trades in all securities (excluding exempt securities). Investment Employees must preclear trades in Proprietary Funds. Refer to Appendix F for trade preclearance requirements and see below for details regarding de minimis transactions and Proprietary Fund transactions in the company’s 401(k) plan.

1. De Minimis Transactions

Investment Employees will generally not be given preclearance approval to execute a transaction in any security for which there is a pending buy or sale order for an affiliated account (other than an index fund) in the business unit where the Investment Employee has access to information about pending transactions. In certain circumstances, the Preclearance Compliance Officer may approve certain de minimis transactions even when the firm is trading such securities.

a) Restrictions and Conditions

- Employee preclearance is required prior to executing the transaction.
- If the transaction is a 60 day trade, recognized profit disgorgement will be applicable.
- Preclearance Compliance Officers are limited to applying this de minimis standard to only two trades in the securities of any one issuer in each calendar month.
- Employees must cooperate with the Preclearance Compliance Officer's request to document market capitalization amounts.

b) Transaction Limits

The below transaction limits are available for this de minimis exception. **Note**: Currency is listed in USD. For all other countries, use the local currency's USD equivalent and/or U.S. share amount.

- Transactions up to $50,000 for companies having a market capitalization of $20 billion or more.
- The dollar value from transacting in 250 shares or $25,000 (whichever value is greater) for companies having a market capitalization between $5 billion and $20 billion.
- The dollar value from transacting in 100 shares or $10,000 (whichever value is greater) for companies having a market capitalization between $250 million and $5 billion.

2. Proprietary Fund Transactions in the Company's 401(k) plan

Investment Employees are required in most situations to preclear Proprietary Fund trades. However, the treatment of Proprietary Fund trades in the company's 401(k) plan is dependent upon the type of plan.

a) Non-Self-Directed Accounts (Includes Tier 1 - LifePath Index Funds, Tier 2 - Passively Managed Index Funds, and Tier 3 - Actively Managed Funds)

The movements of balances into or out of Proprietary Funds are deemed to be purchases or redemptions of those Proprietary Funds for purposes of the holding period requirement but are exempt from the general preclearance requirement. Accordingly, you do not need to preclear these movements, but you must get prior approval from the Preclearance Compliance Officer if it is within 60 calendar days of an opposite transaction in shares of the same fund. In lieu of transaction reporting, employees are deemed to consent to the company obtaining transaction information from plan records. Such movements must be reflected in your holdings reports.

b) Self-Directed Accounts (Tier 4 – Large Selection of Mutual Funds and Exchange Traded Funds)

Treated like any other Proprietary Fund account. This means that the reporting, preclearance, and holding period requirements apply.

BB. Profit Disgorgement on Short-Term Trading

Any profits recognized from purchasing then selling or selling then purchasing the same or equivalent (derivative) securities within any 60 calendar day period must be disgorged. For purposes of disgorgement, profit recognition is based upon the difference between the most recent purchase and sale prices for the most recent transactions. Accordingly, profit recognition for disgorgement purposes may differ from the capital gains calculations for tax purposes. Sixty-day transactions in securities that are exempt from preclearance and trades of Proprietary Funds held within the BNY Mellon 401(k) will not be subject to disgorgement. The disposition of any disgorged profits will be at the discretion of the company, and the employee will be responsible for any tax and related costs.

Appendix D: Requirements for Insider Risk, Fund Service, Service, and Fund Officer Employees

CC. Insider Risk Employees

In addition to the General Requirements of this policy and the Requirements for Monitored Employees (Appendix A), employees who are classified as Insider Risk Employees are also subject to the following requirements:

1. Exempt Securities

In addition to the exempt securities as listed in Appendix H: Definitions, Proprietary Funds, Exchange Traded Funds, and municipal bonds are also considered to be exempt securities for Insider Risk Employees. In all instances that the term "exempt securities" is used throughout this policy, Insider Risk Employees may also include Proprietary Funds, Exchange Traded Funds, and municipal bonds.

2. Preclearing Trades in PTA

Insider Risk Employees are required to receive preclearance approval in PTA prior to executing trades in all securities (excluding exempt securities). Insider Risk Employees must preclear Exchange Traded Notes (ETNs). Refer to Appendix F for trade preclearance requirements.

DD. Fund Officer, Fund Service, and Service Employees

In addition to the General Requirements of this policy and the Requirements for Monitored Employees (Appendix A), employees who are classified as Fund Officer, Fund Service, and Service Employees are also subject to the following requirement:

1. Company Oversight

While Fund Officer, Fund Service, and Service Employees are subject to many of the same requirements as the other employee classifications, Fund Officer, Fund Service, and Service Employees are not required to preclear trades, and therefore, are not subject to pre-trade denials of those trades. However, unlike the other employee classifications, Fund Officer, Fund Service, and Service Employees are subject to a post-trade back-testing analysis that is designed to accumulate and assess employee trading activity that mirrors company or client trades. Trading activity that mirrors company or client trades may result in a change to the employee's classification that will require future preclearance approval.

2. Quarterly Reporting in PTA – For Fund Officer Employees and EMEA based Fund Service Employees Only

In addition to the Initial and Annual Reporting that must be completed by all Monitored Employees, Fund Officer Employees and EMEA-based Fund Service Employees are also subject to Quarterly Reporting. On a quarterly basis and within 30 calendar days after the end of the quarter, these employees are required to file a Quarterly Transactions Report in the PTA. The Quarterly Transactions Report must contain the following:

- A listing of all transactions in securities (excluding exempt securities) that occurred throughout the most recent calendar quarter;
- A current listing of all securities accounts that trade or are capable of trading securities and that are owned directly by you or of which you have indirect ownership;

- A current listing of securities (excluding exempt securities) held in the aforementioned accounts, and;
- A current listing of securities (excluding exempt securities) held outside of the aforementioned accounts (e.g., physical securities held in a safe deposit box, paper certificates, etc.).

All reported information must be current within 45 calendar days of the date the report is submitted. Additionally, as part of this quarterly reporting requirement, employees must also certify that they have read, understand, and complied with this policy.

Appendix E: Requirements for PREG Employees

In addition to the General Requirements of this policy and the Requirements for Monitored Employees (Appendix A), employees who are classified as PREG Employees are also subject to the following requirements:

EE. Exempt Securities

Excluding company securities, all securities are exempt for PREG Employees. In all instances that the term "exempt securities" is used throughout this policy, PREG Employees should note that this includes all securities except company securities. Only company securities are reportable for PREG Employees.

FF. Preclearing Trades in PTA

PREG Employees are required to receive preclearance approval in PTA prior to executing trades in company securities only. Refer to Appendix F for trade preclearance requirements.

GG. Trading in Company Securities

1. General Restrictions

Every quarter, the Company imposes a restriction on PREG employees. These employees are deemed to have access to inside information with respect to the Company's financial results and are prohibited from trading in the Company's securities from 12:01 AM Eastern Standard Time, on the 15th day of the month preceding the end of each calendar quarter through the first trading day after the public announcement of the company's earnings for that quarter. This period of time is during which PREG employees are prohibited from trading in the Company's securities is known as the 24-Hour Blackout Period. For example, if earnings are released on Wednesday at 9:30 AM Eastern Standard Time, PREG Employees cannot trade the Company's securities until Thursday at 9:30 AM Eastern Standard Time. Non-trading days, such as weekends or holidays, are not counted as part of the restricted period. Occasionally, the Company may extend the restricted period for some or all PREG Employees.

2. Company 401(k) Plan

- **Changes in Your Company Stock Holdings** – During quarterly blackout periods, PREG Employees are prohibited from making payroll deduction or investment election changes that would impact their future purchases in company stock. These changes must be made when the blackout period is not in effect.
  - **Reallocating Balances in Company 401(k) Plan** – PREG Employees are prohibited from reallocating balances in their company 401(k) if the reallocating action impacts their holdings in company stock.

3. Company Employee Stock Options

PREG Employees are prohibited from exercising options during the blackout period.

4. Company Employee Stock Purchase Plan (ESPP)

During quarterly blackout periods, PREG employees are prohibited from enrolling in or making payroll deduction changes in the ESPP. These changes must be made when the blackout period is not in effect.

5. Blackout Period Trading Implications Profit Disgorgement/Loss Recognition

Any trade in BNY Mellon securities made during the 24-Hour Blackout Period must be reversed and any corresponding profit recognized from the reversal is subject to profit disgorgement. The employee will incur any loss resulting from the reversal of a blackout period trade. Profit disgorgement will be in accordance with procedures established by senior management. For purposes of disgorgement, profit recognition is based upon the difference between the most recent purchase and sale prices for the most recent transaction(s). Accordingly, profit recognition for disgorgement purposes may differ from the capital gains calculations for tax purposes and the employee will be responsible for any tax costs associated with the transaction(s).

Appendix F: Trade Preclearance Requirements

ADM Employees, Investment Employees, Insider Risk Employees, and PREG Employees are required to preclear trades in all securities (excluding exempt securities). All other employees are not subject to the below trade preclearance requirements.

HH. General Preclearance Requirements

1. Obtain Preclearance Prior to Initiating a Transaction

In order to trade securities (excluding exempt securities), ADM Employees, Investment Employees, Insider Risk Employees, and PREG Employees are required to submit a preclearance request in the PTA system and receive notice that the preclearance request was approved prior to placing a security trade. Unless expressly exempt (See exemptions below), all securities transactions are covered by this preclearance requirement. Although preclearance approval does not obligate an employee to place a trade, preclearance should not be made for transactions the employee does not intend to make. You may not discuss the response to a preclearance request with anyone (excluding any account co-owners or indirect owners).

2. Execute Trade Within Preclearance Window (Preclearance Expiration)

For ADM and Investment Employees, preclearance authorization will expire at the end of the second business day after it is received. For Insider Risk and PREG Employees, preclearance authorization will expire at the end of the third business day after it is received. The day authorization is granted is considered the first business day. See example below. **Note**: Preclearance time stamps in PTA are in Eastern Standard Time (EST).

Example

An ADM Employee requests and receives trade preclearance approval on Monday at 3 PM EST. The preclearance authorization is valid until the close of business on Tuesday. An Insider Risk Employee's window would be one day longer and would therefore be valid until the close of business on Wednesday.

Note of Caution

Employees who place "limit," "stop-loss," "good-until-cancelled," or "standing buy/sell" orders are cautioned that transactions receiving preclearance authorization must be executed before the preclearance expires. At the end of the preclearance authorization period, any unexecuted order must be canceled. A new preclearance authorization may be requested; however, if the request is denied, the trade order with the broker-dealer must be canceled immediately.

3. Exemptions from the Requirement to Preclear

Preclearance is not required for the following security transactions:

- Exempt securities as defined in the Definitions.
- Non-financial commodities (e.g., agricultural futures, metals, oil, gas, etc.), currency, and financial futures (excluding stock and narrow-based stock index futures).
- ETFs and funds to include proprietary funds that are based on the following indices; the S&P 100, Russell 200, Eurostoxx 50, FTSE 100, Nikkei 225, A50 ETFs and the CSI 300. The same indices with larger participation (e.g., S&P 500, Russell 1000) would also be exempt. A complete list of exempt ETFs and Proprietary Funds is listed on MySource. **Only securities on the published list**

are exempt from preclearance. Derivative securities based on these indices still require preclearance.

- Involuntary on the part of an employee (such as stock dividends or sales of fractional shares); however, sales initiated by brokers to satisfy margin calls are not considered involuntary and must be precleared.
- Pursuant to the exercise of rights (purchases or sales) issued by an issuer pro rata to all holders of a class of securities, to the extent such rights were acquired from such issuer.
- Sells effected pursuant to a bona fide tender offer.
- Pursuant to an automatic investment plan, including payroll withholding to purchase Proprietary Funds.

II. Preclearance Rules for Company Stock in Retirement and Benefit Plans

1. Company 401(k) Plan

a) Changes in Your Company Stock Holdings

Preclearance **is not** required for changes in your company stock holdings held within the company 401(k) Plan that result from the following:

- Changes in your payroll deduction contribution percentage.
- Changes in investment elections regarding the future purchase of company stock.

b) Reallocating Balances in Company 401(k) Plan

The purchase or sell of company stock resulting from a reallocation does not require preclearance but is considered a purchase or sale of company stock for purposes of the short-term trading prohibition. As a result, a subsequent trade in company stock in the opposite direction of the reallocation occurring within a 60 calendar day period would result in a short-term trading prohibition. Changes to existing investment allocations in the plan or transactions in company stock occurring outside the plan will not be compared to reallocation transactions in the plan for purposes of the 60 day trading prohibition. Profits recognized through short-term trading in company stock in the plan will not generally be required to be disgorged; however, the Legal Department will be consulted to determine the proper disposition of short-term trading prohibitions involving *Operating Committee* members.

c) Rebalancing Company 401(k) Plan

The purchase or sell of company stock resulting from rebalancing (i.e., the automatic movement of balances to pre-established investment election allocation percentages) is not subject to preclearance and is not considered a purchase or sale of company stock for purposes of the short-term trading prohibition.

2. Company Employee Stock Options

- Preclearance approval is required prior to the exercise of stock option grants.
- Preclearance **is not** required for the receipt of a stock option grant or the subsequent vesting of the grant.

3. Company Restricted Stock/Units

Preclearance **is not** required for the following:

- The receipt of an award of company restricted stock/units.
- The subsequent vesting of the company stock/unit award; however you are required to report these shares upon vesting in the PTA system and preclear subsequent sells.
- The sale (through company-approved procedures) of a portion of the company stock received in a restricted stock award at the time of vesting in order to pay for tax withholding.

4. Company Employee Stock Purchase Plan (ESPP)

- Preclearance is required for the following:
  - The sale of stock from the ESPP Plan. **Note**: The sale of stock from the Company ESPP will be compared to transactions in company securities outside of the Company ESPP to ensure compliance with the short-term (60 day) trading prohibition.
  - The sale of stock withdrawn previously from the ESPP. Like stock sold directly from the ESPP, sales will be compared to transactions in company securities outside of the ESPP to ensure compliance with the short-term (60 day) trading prohibition.
- Preclearance **is not** required for your enrollment in the plan, changes in your contribution to the plan, or shares acquired through the reinvestment of dividends.

Appendix G: Summary of Select Policy Requirements by Employee Classification

Selected Policy Requirements	ADM	Investment Employees	Insider	Fund Service, Service, Fund Officer, and Dreyfus/FINRA Employees	PREG	Non-Classified Employees
U.S.-based employees – required to use approved broker-dealer	X	X	X	X	X	
Initial Accounts and Holdings Reports (filed within 10 days of being classified)	X	X	X	X	X	
Annual Certification (filed within 30 days of year-end)	X	X	X	X	X	
Quarterly Certification (filed within 30 days of quarter-end)	X	X		Only applies to Fund Officers and EMEA-based Fund Service Employees		
Preclear trades	X	X	X		X (BNYM stock only)	
Preclearance window (in business days, includes day approval granted)	2 days	2 days	3 days		3 days	
Preclear Proprietary Funds, Exchange Traded Funds (ETFs), municipal bonds, and all other non-exempt securities	X	X				
Preclear Exchange Traded Notes (ETNs)	X	X	X			
Subject to 7+ - day blackout period	X					
Additional approvals required for personal trades in micro-cap securities	X (MCADMs only)					
Short-term trading (60 days) profit disgorgement on all trades	X	X				

Selected Policy Requirements	**ADM**	**Investment Employees**	**Insider**	**Fund Service, Service, Fund Officer, and Dreyfus/FINRA Employees**	**PREG**	**Non-Classified Employees**
Short-term trading (60 days) profit disgorgement on BNYM stock	X	X	X	X	X	X
Prohibited from buying BNYM stock on margin, short selling BNYM, and trading in BNYM derivatives (options)	X	X	X	X	X	X
Initial public offerings are prohibited (refer to Policy waiver requirements)	X	X	X	X	X	X
Private Placements/Volcker Covered Funds require Ethics Office pre-approval	X	X	X	X	X	X

Appendix H: Definitions

Access Decision Maker (ADM) Employee

An employee designated as such by the Investment Ethics Council. Generally, employees are considered to be ADM Employees if they are Portfolio Managers or Research Analysts and make or participate in recommendations or decisions regarding the purchase or sale of securities for mutual funds or managed accounts. Portfolio Managers of broad-based *index funds* and traders are not typically classified as ADM Employees.

Automatic Investment Plan

A program in which regular periodic purchases (withdrawals) are made automatically to/from investment accounts in accordance with a predetermined schedule and allocation. Examples include: Dividend Reinvestment Plans (DRIPS), payroll deductions, bank account drafts or deposits, automatic mutual fund investments/withdrawals (PIPS/SWIPS), and asset allocation accounts.

Compliance Officer

Any individual whose primary job duties include responsibility for ensuring that all applicable laws, regulations, policies, procedures, and the Code of Conduct are followed. For purposes of this policy, the term “Compliance Officer” and “Preclearance Compliance Officer” are used interchangeably.

Direct Family Relationship

For purposes of this policy, an employee’s immediate family as defined by “indirect ownership” in Appendix H, Definitions.

Dreyfus/FINRA Group Employee

An employee who is subject to regulation resulting from his/her registration with FINRA.

Employee

An individual employed by BNY Mellon or its more-than-50%-owned direct or indirect subsidiaries. This includes all full-time and part-time, benefited and non-benefited, and exempt and non-exempt employees in all world-wide locations.

Exempt Securities

Securities exempt from reporting. All securities require reporting unless expressly exempt by this policy. The below securities are exempt for all classifications of employees. There may be additional exempt securities based on an employee’s classification. Refer to the applicable Appendix for your classification for any additional security exemptions.

- Cash and cash-like securities (e.g., bankers acceptances, bank CDs and time deposits, money market funds, commercial paper, repurchase agreements).
- Direct obligations of the sovereign governments of the United States (U.S. employees only), United Kingdom (U.K. employees only) and Japan (Japan employees only). Obligations of other instrumentalities of the U.S., U.K., and Japanese governments or quasi-government agencies are not exempt.
- High-quality, short-term debt instruments having a maturity of less than 366 days at issuance and rated in one of the two highest rating categories by a nationally recognized statistical rating organization or which is unrated but of comparable quality.
- Securities issued by open-end investment companies (i.e., mutual funds and variable capital companies) that are **not** Proprietary Funds or Exchange Traded Funds (**Note**: Proprietary Funds and Exchange Traded Funds are considered non-exempt securities for ADM and Investment Employees only).

- Securities in non-company 401(k) plans (e.g., spouse's plan, previous employer's plan, etc.).
- Securities in 529 plans, provided they are **not** invested in Proprietary Funds (**Note**: Proprietary Funds and Exchange Traded Funds are considered non-exempt securities for ADM and Investment Employees only).
- Fixed annuities.
- Variable annuities that are **not** invested in Proprietary Fund sub-accounts (**Note**: Variable annuities that are invested in Proprietary Fund sub-accounts are considered non-exempt securities for ADM and Investment Employees only).
- Securities held in approved non-discretionary (managed) accounts.
- Stock held in a bona fide employee benefit plan of an organization not affiliated with the Company on behalf of an employee of that organization, who is a member of the Company employee's immediate family. For example, if an employee's spouse works for an organization unrelated to the Company, the employee is not required to report for transactions that his/her spouse makes in the unrelated organization's company stock so long as they are part of an employee benefit plan. This exemption does **not** apply to any plan that allows the employee to buy and sell securities other than those of their employer. Such situations would subject the account to all requirements of this policy.

Fund Officer Employee

An employee who is not in the Asset Management or Wealth Management businesses and, in the normal conduct of his/her job responsibilities, serves as an officer of a fund, is not required to preclear trading activity by a fund, and does not attend board meetings.

Fund Service Employee

An employee who is not in the Asset Management or Wealth Management businesses and whose normal job responsibilities involve maintaining the books and records of mutual funds and/or managed accounts.

Front Running

The purchase or sale of securities for your own or the company's accounts on the basis of your knowledge of the company's or company's clients trading positions or plans.

Index Fund

An investment company or managed portfolio (including indexed accounts and model-driven accounts) that contain securities in proportions designed to replicate the performance of an independently maintained, broad-based index or that is based not on investment discretion but on computer models using prescribed objective criteria to replicate such an independently maintained index.

Indirect Ownership

Generally, you are the indirect owner of securities if you are named as power of attorney on the account or, through any contract, arrangement, understanding, relationship, or otherwise, you have the opportunity, directly or indirectly, to share at any time in any profit derived from a transaction in them (a "pecuniary interest"). Common indirect ownership situations include, but are not limited to:

- Securities held by members of your immediate family by blood, marriage, adoption, or otherwise, who share the same household with you.
    - "Immediate family" includes your spouse, domestic partner, children (including stepchildren, foster children, sons-in-law and daughters-in-law), grandchildren, parents (including step-parents, mothers-in-law and fathers-in-law), grandparents, and siblings (including brothers-in-law, sisters-in-law and stepbrothers and stepsisters).

- Partnership interests in a general partnership or a general partner in a limited partnership. Passive limited partners are not deemed to be owners of partnership securities absent unusual circumstances, such as influence over investment decisions.
- Corporate shareholders who have or share investment control over a corporation's investment portfolio.
- Trusts in which the parties to the trust have both a pecuniary interest and investment control.
- Derivative securities – You are the indirect owner of any security you have the right to acquire through the exercise or conversion of any *option*, warrant, convertible security or other derivative security, whether or not presently exercisable.
- Securities held in investment clubs.

Initial Public Offering (IPO)

The first offering of a company's securities to the public.

Insider Risk Employee

A classification of employees that in the normal conduct of their job responsibilities are likely to receive or be perceived to be aware of or receive material nonpublic information concerning the company's clients. Employees in this classification typically include, but are not limited to, Risk and Legal personnel. All members of the company's Operating Committee (excluding Pershing Operating Committee Members who are covered by the Pershing trading policy), who are not otherwise classified as Investment Employees, will be classified as Insider Risk Employees.

Investment Clubs

Organizations whose members make joint decisions on which securities to buy or sell. The securities are generally held in the name of the investment club. Prior to participating in an investment club, all employees (excluding Non-Classified Employees) are required to obtain written permission from their Preclearance Compliance Officer. Employees who receive permission to participate in an investment club are subject to the requirements of this policy.

Investment Company

A company that issues securities that represent an undivided interest in the net assets held by the company. Mutual funds are open-end investment companies that issue and sell redeemable securities representing an undivided interest in the net assets of the company.

Investment Employee

An employee who, in the normal conduct of his/her job responsibilities, has access (or are likely to be perceived to have access) to nonpublic information regarding any advisory client's purchase or sale of securities or nonpublic information regarding the portfolio holdings of any Proprietary Fund, is involved in making securities recommendations to advisory clients, or has access to such recommendations before they are public. This classification typically includes employees in the Asset Management and Wealth Management businesses, including:

- Certain employees in fiduciary securities sales and trading, investment management and advisory services, investment research and various trust or fiduciary functions; Employees of a Company business regulated by certain investment company laws. Examples are:
  - In the U.S., employees who are "advisory persons" or "access persons" under Rule 17j-1 of the Investment Company Act of 1940 or "access persons" under Rule 204A-1 of the Advisers Act.
  - In the U.K., employees in companies undertaking specified activities under the Financial Services and Markets Act 2000 (Regulated Activities), Order 2001, and regulated by the Financial Conduct Authority.

- Any member of the company's Operating Committee who, as part of his/her usual duties, has management responsibility for fiduciary activities or routinely has access to information about advisory clients' securities transactions.

Investment Ethics Council (IEC)

Council having oversight responsibility for issues related to personal securities trading and investment activity by ADM Employees. The members are determined by the Chief Compliance & Ethics Officer.

Manager of the Ethics Office

An individual appointed by the Chief Compliance & Ethics Officer to manage the Ethics Office.

Micro-Cap Access Decision Maker (MCADM) Employee

A subset of ADM Employees who make recommendations or decisions regarding the purchase or sale of any security of an issuer with a small market capitalization. The market capitalization threshold used when determining if an ADM Employee is considered a MCADM Employee is a market capitalization equal to or less than $250 million (for all other countries, the local currency's USD equivalent is used).

Money Market Fund

A mutual fund that invests in short-term debt instruments where its portfolio is valued at amortized cost so as to seek to maintain a stable net asset value (typically, of $1 per share).

Non-Discretionary (Managed) Account

An account in which the employee has a beneficial interest but no direct or indirect control over the investment decision making process. It may be exempted from preclearance and reporting procedures only if the Ethics Office is satisfied that the account is truly non-discretionary (i.e., the employee has given total investment discretion to an investment manager and retains no ability to influence specific trades). Employees are required to complete an annual certification in PTA regarding managed accounts. In addition, employees are required to provide copies of statements to Compliance when requested.

Non-Self-Directed Accounts

The portion of the Company 401(k) balance invested in Tier 1 - LifePath Index Funds, Tier 2 - Passively Managed Index Funds, Tier 3 - Actively Managed Funds, and/or BNY Mellon stock.

Operating Committee

The Operating Committee of BNY Mellon.

Option

A security which gives the investor the right, but not the obligation, to buy or sell a specific security at a specified price within a specified time frame. For purposes of compliance with this policy, an employee who buys/sells an option is deemed to have purchased/sold the underlying security when the option was purchased/sold. Four combinations are possible as described below:

Call Options

- If an employee buys a call option, the employee is considered to have purchased the underlying security on the date the option was purchased.
- If an employee sells a call option, the employee is considered to have sold the underlying security on the date the option was sold (for covered call writing, the sale of an out-of-the-money option **is not** considered for purposes of the 60 day trading prohibition). Please note that this would not apply to covered calls on BNY Mellon stock as option trades of Company stock are prohibited.

Put Options

- If an employee buys a put option, the employee is considered to have sold the underlying security on the date the option was purchased.
- If an employee sells a put option, the employee is considered to have bought the underlying security on the date the option was sold.

Preclearance Compliance Officer

A person designated by the Ethics Office and/or the Investment Ethics Council to administer, among other things, employees' preclearance requests for a specific business (for purposes of this policy, the term "Compliance Officer" and "Preclearance Compliance Officer" are used interchangeably).

Pre-Release Earnings Group (PREG)

The Pre-Release Earnings Group consists of all members of the Company's Operating Committee and any individual determined by the Company's Corporate Finance Department to be a member of the group.

Private Placement

An offering of securities that is exempt from registration under various laws and rules, such as the Securities Act of 1933 in the U.S. and the Listing Rules in the U.K. Such offerings are exempt from registration because they do not constitute a public offering. Private placements can include limited partnerships, certain cooperative investments in real estate, co-mingled investment vehicles such as hedge funds, investments in privately-held and family owned businesses and Volcker Covered Funds. For the purpose of this policy, time-shares and cooperative investments in real estate used as a primary or secondary residence are not considered to be private placements.

Proprietary Fund

An investment company or collective fund for which a Company subsidiary serves as an investment adviser, sub-adviser or principal underwriter. The Proprietary Funds listing can be found on MySource on the Compliance and Ethics homepage or it can be obtained by sending an email to the Securities Trading Policy Help Line at securitiestradingpolicyhelp@bnymellon.com.

Scalping

The purchase or sale of securities for clients for the purpose of affecting the value of a security owned or to be acquired by you or the company.

Security

Any investment that represents an ownership stake or debt stake in a company, partnership, governmental unit, business or other enterprise. It includes stocks, bonds, notes, evidences of indebtedness, certificates of participation in any profit-sharing agreement, collateral trust certificates, and certificates of deposit. It also includes security-based swaps and many types of puts, calls, straddles and options on any security or group of securities; fractional undivided interests in oil, gas, or other mineral rights; and investment contracts, variable life insurance policies and variable annuities whose cash values or benefits are tied to the performance of an investment account. It does not include currencies. Unless expressly exempt, all securities transactions are covered under the provisions of this policy (See exempt securities).

Self-Directed Accounts

An account established as part of the company 401(k) plan that offers employees the opportunity to build and manage their own investment portfolio through the purchase and sale of a broad variety of Exchange Traded Funds, Proprietary Funds, and non-Proprietary Funds.

Service Employee

A classification of employees who are not employees in the Asset Management or Wealth Management businesses, but in the normal conduct of their job responsibilities have access to post-trade information, including security transactions and portfolio holdings information. Employees in this classification may include, but are not limited to, Compliance, Audit, and Technology personnel.

Short Sale

The sale of a security that is not owned by the seller at the time of the trade.

Spread Betting

A type of speculation that involves taking a bet on the price movement of a security. A spread betting company quotes two prices, the bid and offer price (also, called the spread), and investors bet whether the price of the underlying security will be lower than the bid or higher than the offer. The investor does not own the underlying security in spread betting, they simply speculate on the price movement of the stock.

Tender Offer

An offer to purchase some or all shareholders' shares in a corporation. The price offered is usually at a premium to the market price.

Volcker Covered Fund

- Any issuer that would be an investment company under the Investment Company Act of 1940 (the “Act”) that avoids mutual fund registration under Sections 3(c)(1) or 3(c)(7) of the Act because securities are offered privately and are owned either (i) by 100 persons or fewer or (ii) by qualified purchasers. If a fund relies on another exemption from the Act, it is not a covered fund.
- Foreign equivalent of the above.
- Commodity pool for qualified investors.

The list of Volcker Covered Funds can be found at the Volcker Compliance site on MySource.

EXHIBIT VII
TAX AND SOCIAL SECURITY CONSEQUENCES OF PARTICIPATION IN THE ESPP, SAP, AND LTIP[2]

1. Belgium

The following is intended to briefly summarize certain tax consequences associated with the acquisition of Shares ("Shares") under (i) The Bank of New York Mellon Corporation Employee Stock Purchase Plan (the "ESPP") and (ii) The Bank of New York Mellon Corporation Long-Term Incentive Plan (the "LTIP").

This discussion reflects the tax and other law as in effect in Belgium on March 12, 2018. Such laws are often complex and change frequently. As a result, the information contained in this description may be out of date at the time the employee is granted an award, acquires Shares or sells Shares acquired under the ESPP and/or the LTIP.

In addition, this description does not discuss all of the various laws, rules and regulations that may apply. It may not apply to the employee's particular tax or financial situation and the Company is not in a position to assure the employee of any particular tax result. **Accordingly, the employee is strongly advised to seek appropriate professional advice as to how the tax or other laws in his/her country apply to his/her specific situation.**

If the employee is a citizen or resident of a country other than Belgium, the information contained in this description may not be applicable to the employee.

Any examples contained within this description are for illustrative purposes only.

ESPP

Enrollment in the ESPP

The employee is not subject to tax when a stock purchase right is granted to him/her under the ESPP (*i.e.*, when the employee subscribes to the ESPP).

Purchase of Shares

When Shares are purchased under the ESPP, the employee will be subject to personal income tax (at the normal progressive income tax rates) on the difference (or spread) between the fair market value of the Shares on the date of purchase and the purchase price.

Example:
- Accumulated contributions at the end of a certain purchase period: US$ 1,500
- Purchase price: US$ 38.00
- Number of Shares purchased: 39 (for purposes of this example, the number was rounded)
- Stock exchange price on the purchase date: US$ 40.00

[2]All figures in the examples are for illustrative purposes only.

The employee will be taxed on the difference between US$ 38.00 and US$ 40.00 (*i.e*., US$ 2.00) times the number of Shares purchased (*i.e*., 39) or 39 x US$ 2.00 = US$ 78.00 or EUR 63.18 (at an exchange rate of US$ 1: EUR 0.81). This taxable amount, *i.e.*, US$ 78.00 or EUR 63.18 in the example, will be taxed at the normal progressive income tax rates. If the employee were, for instance, to be taxed at a 50% rate, the tax due will amount to US$ 39.00 or EUR 31.59 (at an exchange rate of US$ 1: EUR 0.81).

If, however, the employee undertakes in writing to hold the Shares for a minimum period of two years as of their purchase in a written agreement with the Company, and actually holds the Shares during that period of time, the taxable benefit may be reduced, from a tax perspective, to the difference between 100/120th of the fair market value of the Shares on the purchase date and the amount paid for the Shares.

Sale of Shares

When the employee subsequently sells the Shares purchased under the ESPP, he/she should not be subject to capital gains tax.

The employee will be subject to a stock exchange tax at the time he/she sells the Shares purchased under the ESPP. The stock exchange tax applies on the sale proceeds on a per transaction basis (subject to the applicable maximum threshold). The employee will be responsible for filing a stock exchange tax return and paying the tax due by the end of the second month following the month of the sale, except in the unlikely event that the financial intermediary involved in the sale of shares arranges to pay and/or remit the stock exchange tax on the employee’s behalf via a Belgian representative.

Dividends

Where Shares are acquired under the ESPP, dividends may be paid with respect to these Shares if the Company, in its discretion, declares a dividend. The dividends received will be subject to income tax in Belgium (at a rate of 30%) and to U.S. federal income withholding tax. The employee may be entitled to reduce the U.S. federal income withholding tax rate provided that the appropriate certifications concerning domicile in Belgium are provided as required by the United States Internal Revenue Service (i.e., Substitute Form W-8BEN Certificate of Foreign Status and Instructions available from the brokerage firm(s) retained by the Company).

Withholding and Reporting

If the employee's local employer does not intervene in the ESPP, the local employer should not be required to withhold income tax at the time of the taxable event. In such case, the employer should also not be required to report the taxable amount in the employee's salary forms. The employee is always obliged and responsible to report the benefit in kind on his/her annual income tax return and to pay any taxes resulting from the purchase of the Shares. In addition, the employee is always obliged and responsible to report any security or bank account held outside Belgium on his/her annual income tax return. Furthermore, the employee will also have to provide a central contact point at the National Bank of Belgium with the account number of such foreign bank accounts in a separate report (the form for, and modalities of, this reporting obligation are available on www.nbb.be.

Social Security

If the Company does not charge the costs related to the ESPP to the employee's local employer and if the local employer is not directly or indirectly involved in the ESPP, no social security contributions are in principle due on the fringe benefit derived from the participation in the ESPP.

Tax on securities accounts

As of January 1, 2018, the employee may be subject to a 0.15% tax on securities accounts with Belgian and foreign financial institutions if the total average annual value of the securities he/she holds on securities accounts exceeds EUR 500,000. For securities accounts maintained with Belgian financial institutions, the responsibility to report and pay the tax lies with the Belgian institutions. If the employee holds securities on accounts with several Belgian financial institutions and the threshold of €500.000 is not reached with respect to the separate accounts, but only taken together, then the employee is responsible to report and pay the tax. In case shares are held on foreign securities accounts, and the tax is not voluntarily withheld abroad, you will be solely responsible for declaring and paying the tax on securities accounts due.

LTIP - RSUs

Grant

The employee should not be subject to taxation on the date the Company grants him/her RSUs under the LTIP that is payable in Shares.

Vesting

The employee should be subject to the taxation on the date he/she becomes vested in the RSU and receives Shares and should be taxed, on the fair market value of the Shares at that time. The taxable amount will be classified as employment compensation and will be subject to income taxes at progressive tax rates.

Sale of Shares

When the employee subsequently sells the Shares acquired under the LTIP, he/she should not be subject to capital gains tax.

The employee will be subject to a stock exchange tax at the time he/she sells the Shares purchased under the ESPP. The stock exchange tax applies on the sale proceeds on a per transaction basis (subject to the applicable maximum threshold). The employee will be responsible for filing a stock exchange tax return and paying the tax due by the end of the second month following the month of the sale, except in the unlikely event that the financial intermediary involved in the sale of shares arranges to pay and/or remit the stock exchange tax on the employee’s behalf via a Belgian representative.

Dividends

Where Shares are acquired under the LTIP, dividends may be paid with respect to these Shares if the Company, in its discretion, declares a dividend. The dividends received will be subject to income tax in Belgium (at a rate of 30%) and to U.S. federal income withholding tax. The employee may be entitled to reduce the U.S. federal income withholding tax rate provided that the appropriate certifications concerning domicile in Belgium are provided as required by the United States Internal Revenue Service (i.e., Substitute Form W-8BEN Certificate of Foreign Status and Instructions available from the brokerage firm(s) retained by the Company).

Dividend equivalents

The employee will be subject to income taxes at progressive income tax rates on any dividend equivalents that are paid to him/her prior to the acquisition of the Shares.

Withholding and Reporting

If the Company does not charge the costs related to the LTIP to the employee's local employer and if the local employer does not intervene in the LTIP, the local employer should not be required to withhold income tax at the time of the taxable event. In such case, the employer should also not be required to report the taxable amount in the employee's salary forms. The employee is always obliged and responsible to report the benefit in kind on his/her annual income tax return and to pay any taxes resulting from the vesting of the Shares. In addition, the employee is always obliged and responsible to report any security or bank account held outside Belgium on his/her annual income tax return. Furthermore, the employee will also have to provide a central contact point at the National Bank of Belgium with the account number of such foreign bank accounts in a separate report (the form for, and modalities of, this reporting obligation are available on www.nbb.be).

Social security

If the Company does not charge the costs related to the LTIP to the employee's local employer and if the local employer is not directly or indirectly involved in the LTIP, no social security contributions are in principle due on the benefit derived from the participation in the LTIP.

Tax on securities accounts

As of January 1, 2018, the employee may be subject to a 0.15% tax on securities accounts with Belgian and foreign financial institutions if the total average annual value of the securities he/she holds on securities accounts exceeds EUR 500,000. For securities accounts maintained with Belgian financial institutions, the responsibility to report and pay the tax lies with the Belgian institutions. If the employee holds securities on accounts with several Belgian financial institutions and the threshold of €500.000 is not reached with respect to the separate accounts, but only taken together, then the employee is responsible to report and pay the tax. In case shares are held on foreign securities accounts, and the tax is not voluntarily withheld abroad, you will be solely responsible for declaring and paying the tax on securities accounts due.

2. Ireland

The following is intended to briefly summarize certain tax consequences associated with the acquisition of Shares ("Shares") under (i) The Bank of New York Mellon Corporation Employee Stock Purchase Plan (the "ESPP") and (ii) The Bank of New York Mellon Corporation Long-Term Incentive Plan (the "LTIP").

This discussion reflects the tax and other law as in effect in Ireland on March 1, 2018. Such laws are often complex and change frequently. As a result, the information contained in this description may be out of date at the time the employee is granted an award, acquires Shares or sells Shares acquired under the ESPP and/or the LTIP.

In addition, this description does not discuss all of the various laws, rules and regulations that may apply. It may not apply to the employee's particular tax or financial situation and the Company is not in a position to assure the employee of any particular tax result. **Accordingly, the employee is strongly advised to seek appropriate professional advice as to how the tax or other laws in his/her country apply to his/her specific situation.**

If the employee is a citizen or resident of a country other than Ireland, the information contained in this description may not be applicable to the employee.

Any examples contained within this description are for illustrative purposes only.

ESPP

Enrollment in the ESPP

The employee is not subject to tax when a stock purchase right is granted to him/her under the ESPP (*i.e.*, when the employee subscribes to the ESPP).

Purchase of Shares

When shares are purchased under the ESPP, the employee will generally be subject to personal income tax at the employee's marginal rate, either 20% or 40% (2018 income), on the difference (or spread) between the fair market value of the Shares on the date of purchase and the purchase price. In addition, the employee also will be subject to the Universal Social Charge ("USC") (at rates up to 8% depending on the employee's income level) and employee Pay Related Social Insurance ("PRSI") on the spread at purchase (at a rate of 4%).

The employee must pay income tax on the spread at the higher tax rate (currently 40%), plus USC and employee PRSI within 30 days of the purchase date without an assessment by the tax inspector. If the employee is subject to income tax at the lower tax rate (currently 20%), he/she may apply to pay tax at the lower rate. However, if permission to pay tax at the lower rate is not received within 30 days of the purchase date, the employee must pay tax at the higher rate and seek a refund on any overpayment.

Example:

- Accumulated contributions at the end of a certain purchase period: US$ 1,500
- Purchase price: US$ 38.00
- Number of Shares purchased: 39 (for purposes of this example, the number was rounded)
- Stock exchange price on the purchase date: US$ 40.00

The employee will be taxed on the difference between US$ 38.00 and US$ 40.00 (*i.e.*, US$ 2.00) times the number of Shares purchased (*i.e.*, 39) or 39 x US$ 2.00 = US$ 78.00 or EUR 61.18 (at an exchange rate of US$ 1: EUR 0.81). This taxable amount, *i.e.*, US$ 78.00 or EUR 51.18 in the example, will be taxed at the marginal tax rate. If the employee were, for instance, to be taxed at a 40% rate, the income tax due will amount to US$ 31.20 or EUR 25.27 (at an exchange rate of US$ 1: EUR 0.81). In addition, the employee will be liable for USC and employee PRSI on the taxable amount, in this example of US$ 78.00 or EUR 61.18.

Sale of Shares

When the employee subsequently sells the Shares purchased under the ESPP, any gain (*i.e.*, the difference between the sale price and the fair market value of the Shares on the purchase date) will be subject to capital gains tax at a rate of 33%. However, capital gains tax is only payable on gains from all sources in excess of the annual personal exemption in any tax year (€1,270 for gains realized in 2018).

Dividends

Where Shares are acquired under the ESPP, dividends may be paid with respect to these Shares if the Company, in its discretion, declares a dividend. The dividends received will be subject to income tax in Ireland (at marginal tax rates), USC (at rates up to 8% depending on the employee's income level) and to U.S. federal income withholding tax. In addition, depending on the employee’s personal circumstances, the employee may also be subject to employee PRSI on any dividends received. The employee may be entitled to reduce the U.S. federal income withholding tax rate provided that the appropriate certifications concerning domicile in Ireland are provided as required by the United States Internal Revenue Service (*i.e.*, Substitute Form W-8/BEN Certificate of Foreign Status and Instructions, available from the brokerage firm(s) retained by the Company). Further, the employee may be entitled to a tax credit against his/her Irish income tax for the U.S. federal income tax withheld at source

Withholding and Reporting

The local employer will not withhold income tax, employee PRSI or the USC when Shares are purchased under the ESPP, but will report the details of the grant and purchase of Shares to the Irish Revenue Commissioners. It is the employee's responsibility to report and pay any tax due as a result of his/her participation in the ESPP within the timeframes set forth by the Irish Revenue Commissioners.

Social security

Social security contributions (*e.g.*, employee PRSI) are due on the income derived from participation in the ESPP. As referenced above, the local employer will not withhold the employee's portion of such contributions.

LTIP - RSUs

Grant

The employee should not be subject to taxation on the date the Company grants him/her an RSU under the LTIP that is payable in Shares.

Vesting

The employee will be subject to taxation at vesting (*i.e.*, on the receipt of the Shares) on the fair market value of the Shares at that date. The taxable amount will be classified as employment compensation and will generally be subject to income taxes at the employee's marginal rate, either 20% or 40% (2018 income), a Universal Social Charge ("USC") (at rates up to 8% depending on the employee's income level) and employee Pay Related Social Insurance ("PRSI") at a rate of 4%.

Sale of Shares

When the employee subsequently sells the Shares acquired under the LTIP, any gain (*i.e.*, the difference between the sale price and the fair market value of the Shares on the vesting date) will be subject to capital gains tax at a rate of 33%. However, capital gains tax is only payable on gains from all sources in excess of the annual personal exemption in any tax year (€1,270 for gains realized in 2018).

Dividends

Where Shares are acquired under the LTIP, dividends may be paid with respect to these Shares if the Company, in its discretion, declares a dividend. The dividends received will be subject to income tax in Ireland (at marginal tax rates), USC (at rates up to 8% depending on the employee's income level) and to U.S. federal income withholding tax. In addition, depending on the employee’s personal circumstances, the employee may also be subject to employee PRSI on any dividends received. The employee may be entitled to reduce the U.S. federal income withholding tax rate provided that the appropriate certifications concerning domicile in Ireland are provided as required by the United States Internal Revenue Service (*i.e.*, Substitute Form W-8/BEN Certificate of Foreign Status and Instructions, available from the brokerage firm(s) retained by the Company). Further, the employee may be entitled to a tax credit against his/her Irish income tax for the U.S. federal income tax withheld at source

Dividend Equivalents

If a dividend is declared on the Company's common stock and the employee holds unvested RSUs on the record date, the employee is eligible for dividend equivalents. The employee will be subject to income tax, USC and PRSI on any dividend equivalents paid to him/her.

Withholding and Reporting

The local employer must withhold and report income tax, USC and the employee portion of the PRSI upon vesting of the RSUs and payment of dividend equivalents. The local employer is also required to report the details of the RSUs to the Revenue Commissioners on an annual basis.

It is the employee's responsibility to pay any taxes resulting from the sale of his/her shares and/or the receipt of any dividends.

Social security

Social security contributions (*e.g.*, employee PRSI) are due on the income derived from participation in the LTIP (*i.e.*, the fair market value of the Shares acquired upon vesting and dividend equivalents). As noted above, the local employer will withhold the employee's portion of such contributions.

3. Luxembourg

The following is intended to briefly summarize certain tax consequences associated with the acquisition of Shares ("Shares") under (i) The Bank of New York Mellon Corporation Employee Stock Purchase Plan (the "ESPP") and (ii) The Bank of New York Mellon Corporation Long-Term Incentive Plan (the "LTIP").

This discussion reflects the tax and social security laws as in effect in Luxembourg on March 1, 2018. Such laws are often complex and change frequently. As a result, the information contained in this description may be out of date at the time the employee is granted an award, acquires Shares or sells Shares acquired under the ESPP and/or the LTIP.

In addition, this description does not discuss all of the various laws, rules and regulations that may apply. It may not apply to the employee's particular tax or financial situation and the Company is not in a position to assure the employee of any particular tax result. **Accordingly, the employee is strongly advised to seek appropriate professional advice as to how the tax or other laws in his/her country apply to his/her specific situation.**

If the employee is a resident of a country other than Luxembourg, the information contained in this description may not be applicable to the employee.

Any examples contained within this description are for illustrative purposes only.

ESPP

Enrollment in the ESPP

The employee is, in principle, not subject to tax when a stock purchase right is granted to him/her under the ESPP (*i.e.,* when the employee subscribes to the ESPP).

Purchase of Shares

When shares are purchased under the ESPP, the employee likely will be subject to tax on the difference (or spread) between the fair market value of the Shares on the date of purchase and the purchase price. The taxable amount is treated as salary income and as such is subject to personal income tax (based on progressive tax rates (up to 45.78% including employment fund contributions) depending on the employee's personal situation).

Example:

- Accumulated contributions at the end of a certain purchase period: US$ 1,500
- Purchase price: US$ 38.00
- Number of Shares purchased: 39 (for purposes of this example, the number was rounded)
- Stock exchange price on the purchase date: US$ 40.00

The employee will be taxed on the difference between US$ 38.00 and US$ 40.00 (*i.e*., US$ 2.00) times the number of Shares purchased (*i.e*., 39) or 39 x US$ 2.00 = US$ 78.00 or EUR 63.18 (at an exchange rate of US$ 1: EUR 0.81). This taxable amount, *i.e.*, US$ 78.00 or EUR 63.18 in the example, will be taxed at the normal progressive income tax rates. If the employee were, for instance, to be taxed at a 45.78% rate, the tax due will amount to approximately US$ 35.71 or EUR 28.93 (at an exchange rate of US$ 1: EUR 0.81).

Sale of Shares

When the employee subsequently sells the Shares purchased under the ESPP, the employee will not be subject to capital gains tax on any gain (*i.e.,* the difference between the sale price and the fair market value of the Shares on the purchase date) provided the following conditions are met:

(1) The employee has held the Shares for less than seven calendar days or for more than six months from the date of acquisition;

(2) The employee has not: (i) at any time during the last five years preceding the date of the disposition, directly or indirectly held more than 10% of the share capital of the Company (either alone or together with his/her spouse or children); or (ii) acquired free of charge, within the five years preceding the transfer, a participation that was constituting a substantial participation in the hands of the alienator (or the alienators in case of successive transfers free of charge within the same five-year period); and

(3) The Shares are not held as a business asset.

If conditions (1) and/or (3) are not met, the gain resulting from the sale will be taxable as ordinary income (based on progressive tax rates (up to 45.78% including employment fund contributions) depending on the employee's personal situation). If only condition (1) is not met, the speculative gain is not subject to tax if the total annual speculative gains do not exceed a certain threshold set annually (*i.e.,* speculative gains are not subject to tax if the aggregate gains realized within the same tax year do not exceed EUR 500). If only condition (2) is not met, the gain resulting from the sale will be taxed as extraordinary income according to the half-global rate method, *i.e.,* the average rate applicable to the sum of ordinary and extraordinary income is calculated according to progressive income tax rates and half of the average rate is applied to the extraordinary income (*i.e.*, maximum rate of 22.89% in 2018). These rules are complex and the employee is advised to consult with his/her personal advisor to understand the tax consequences upon a sale of Shares.

Dividends

Where Shares are acquired under the ESPP, dividends may be paid with respect to these Shares if the Company, in its discretion, declares a dividend. Fifty-percent (50%) of the dividends received will be subject to income tax in Luxembourg[3] (at rates up to 45.78% including employment fund contributions) to the extent such amount is in excess of the annual tax-free allowance[4] applicable to

[3] Please note that the 50% exemption will be applicable only if the Company is (i) a Luxembourg resident fully-taxable company limited by share capital; (ii) a company limited by share capital resident in a State with which Luxembourg has concluded a double tax treaty and liable to a tax corresponding to Luxembourg corporate income tax; or (iii) a company resident in an EU Member State and covered by Article 2 of the EU Parent-Subsidiary Directive.

[4] Up to EUR 1,500 (or EUR 3,000 for jointly taxable couples).

income from movable property (mainly interest and dividends). Employees may also benefit from a lump sum annual deduction that is available for investment expenses. The dividends also will be subject to U.S. federal income withholding tax. The employee may be entitled to reduce the U.S. federal income withholding tax rate provided that the appropriate certifications concerning domicile in Luxembourg are provided as required by the United States Internal Revenue Service (*i.e.*, Substitute Form W-8/BEN Certificate of Foreign Status and Instructions, available from the brokerage firm(s) retained by the Company). Further, the employee may be entitled to a tax credit against his/her Luxembourg income tax for the U.S. federal income tax withheld at source.

Withholding and Reporting

The local employer will withhold, on a monthly basis, tax on the ESPP income, together with the income tax on wages, because the spread will be considered a benefit in-kind to the employee. The local employer must report the income tax on the employee's Certificat de Remuneration and pay the withheld amount to the Luxembourg tax authorities (*i.e.*, Administration des Contributions Directes). The employee will not have reporting obligations with respect to income obtained under the ESPP. However, if the employee's total earnings (including the income from the ESPP) exceed an annual ceiling, the employee is required to file an annual tax return on or before March 31st following the relevant tax year and has to include any income realized under the ESPP.

As with income taxes, the employee's portion of social security contributions has to be withheld and be paid by the local employer.

Social security

The employee also will be subject to social security contributions on the income received under the ESPP to the extent the monthly wage ceiling has not been exceeded already. The monthly wage ceiling amounts to EUR 9,992.93 (2018). Further, please note that such annual wage ceiling is applicable only to social security contributions regarding sickness, pension, accident, mutual insurance and health at work.

The aggregate rate of the social security contribution is 12.45% for Luxembourg employees.

LTIP - RSUs

Grant

The employee should not be subject to taxation on the date the Company grants him/her an RSU under the LTIP that is payable in Shares.

Vesting

The employee likely will be subject to the taxation on the date he/she becomes vested in the RSU and receives Shares and should be taxed, on the fair market value of the Shares at that time. The taxable amount is treated as salary income and as such is subject to personal income tax (based on progressive tax rates (up to 45.78% including employment fund contributions) depending on the employee's personal situation).

Sale of Shares

When the employee subsequently sells the Shares acquired under the LTIP, the employee will not be subject to capital gains tax on any gain (*i.e.*, the difference between the sale price and the fair market value of the Shares at vesting) provided the following conditions are met:

(1) The employee has held the Shares for less than seven calendar days or for more than six months from the date of acquisition;

(2) The employee has not: (i) at any time during the last five years preceding the date of the disposition, directly or indirectly held more than 10% of the share capital of the Company (either alone or together with his/her spouse or children); or (ii) acquired free of charge, within the five years preceding the transfer, a participation that was constituting a substantial participation in the hands of the alienator (or the alienators in case of successive transfers free of charge within the same five-year period); and

(3) The Shares are not held as a business asset.

If conditions (1) and/or (3) are not met, the gain resulting from the sale will be taxable as ordinary income (based on progressive tax rates (up to 45.78% including employment fund contributions) depending on the employee's personal situation). If only condition (1) is not met, the speculative gain is not subject to tax if the total annual speculative gains do not exceed a certain threshold set annually (*i.e.*, speculative gains are not subject to tax if the aggregate gains realized within the same tax year do not exceed EUR 500). If only condition (2) is not met, the gain resulting from the sale will be taxed as extraordinary income according to the half-global rate method, *i.e.*, the average rate applicable to the sum of ordinary and extraordinary income is calculated according to progressive income tax rates and half of the average rate is applied to the extraordinary income (*i.e.*, maximum rate of 22.89% in 2017). These rules are complex and the employee is advised to consult with his/her personal advisor to understand the tax consequences upon a sale of Shares.

Dividends

Where Shares are acquired under the LTIP, dividends may be paid with respect to these Shares if the Company, in its discretion, declares a dividend. Fifty-percent (50%) of the dividends received will be subject to income tax in Luxembourg[5] (at rates up to 45.78% including employment fund contributions) to the extent such amount is in excess of the annual tax-free allowance[6] applicable to income from movable property (mainly interest and dividends). Employees may also benefit from a lump sum annual deduction that is available for investment expenses. The dividends also will be subject to U.S. federal income withholding tax. The employee may be entitled to reduce the U.S. federal income withholding tax rate provided that the appropriate certifications concerning domicile in Luxembourg are provided as required by the United States Internal Revenue Service (*i.e.*, Substitute Form W-8/BEN Certificate of Foreign Status and Instructions, available from the brokerage firm(s) retained by the Company). Further, the employee may be entitled to a tax credit against his/her Luxembourg income tax for the U.S. federal income tax withheld at source.

[5] Please note that the 50% exemption will be applicable under the above-mentioned conditions (see footnote 2 for further details).
[6] Up to EUR 1,500 (or EUR 3,000 for jointly taxable couples).

Dividend Equivalents

The employee will be subject to income tax and social insurance contributions on any dividend equivalents paid to him/her.

Withholding and Reporting

The local employer will withhold, on a monthly basis, tax on the RSU income and the dividend equivalents, together with the income tax on wages. The local employer must report the income tax on the employee's Certificat de Remuneration and pay the withheld amount to the Luxembourg tax authorities (*i.e.,* Administration des Contributions Directes). The employee will not have reporting obligations with respect to income obtained under the LTIP. However, if the employee's total earnings (including the income from RSUs and dividend equivalents) exceed an annual ceiling, the employee is required to file an annual tax return on or before March 31st following the relevant tax year and has to include any income realized under the LTIP.

As with income taxes, the employee's portion of social security contributions has to be withheld and be paid by the local employer.

Social security

The employee also will be subject to social security contributions on the income received under the LTIP (*i.e.,* the fair market value of the Shares acquired upon vesting and dividend equivalents) to the extent the monthly wage ceiling has not been exceeded already. The monthly wage ceiling amounts to EUR 9,992.93 (2018). Further, please note that such annual wage ceiling is applicable only to social security contributions regarding sickness, pension, accident, mutual insurance and health at work.

The aggregate rate of the social security contribution is 12.45% for Luxembourg employees.

4. Netherlands

The following is intended to briefly summarize certain tax consequences associated with the acquisition of Shares ("Shares") under (i) The Bank of New York Mellon Corporation Employee Stock Purchase Plan (the "ESPP") and (ii) The Bank of New York Mellon Corporation Long-Term Incentive Plan (the "LTIP").

This discussion reflects the tax and other law as in effect in the Netherlands on March 1, 2018. Such laws are often complex and change frequently. As a result, the information contained in this description may be out of date at the time the employee is granted an award, acquires Shares or sells Shares acquired under the ESPP and/or the LTIP.

In addition, this description does not discuss all of the various laws, rules and regulations that may apply. It may not apply to the employee's particular tax or financial situation and the Company is not in a position to assure the employee of any particular tax result. **Accordingly, the employee is strongly advised to seek appropriate professional advice as to how the tax or other laws in his/her country apply to his/her specific situation.**

If the employee is a citizen or resident of a country other than the Netherlands, the information contained in this description may not be applicable to the employee.

Any examples contained within this description are for illustrative purposes only.

ESPP

Enrollment in the ESPP

The employee is not subject to tax when a stock purchase right is granted to him/her under the ESPP (*i.e.*, when the employee subscribes to the ESPP).

Purchase of Shares

When shares are purchased under the ESPP, the employee will be subject to tax on the difference (or spread) between the fair market value of the Shares on the date of purchase and the purchase price. The taxable amount is treated as salary income and as such is subject to wage withholding tax as an advance levy of personal income tax (at progressive rates of up to 52%).

Example:

- Accumulated contributions at the end of a certain purchase period: US$ 1,500
- Purchase price: US$ 38.00
- Number of Shares purchased: 39 (for purposes of this example, the number was rounded)
- Stock exchange price on the purchase date: US$ 40.00

The employee will be taxed on the difference between US$ 38.00 and US$ 34.00 (*i.e.*, US$ 2.00) times the number of Shares purchased (*i.e.*, 39) or 39 x US$ 2.00 = US$ 78.00 or EUR 63.18 (at an exchange rate of US$ 1: EUR 0.81). This taxable amount, *i.e.*, US$ 78.00 or EUR 63.18 in the example, will be taxed at the progressive income tax rates. If the employee were, for instance, to be taxed at a 52% rate, the tax due will amount to approximately US$ 40.56 or EUR 32.85 (at an exchange rate of US$ 1: EUR 0.81).

Sale of Shares

When the employee subsequently sells the Shares purchased under the ESPP, the employee will not be subject to capital gains tax on any gain (*i.e.*, the difference between the sale price and the fair market value of the Shares on the purchase date) provided the employee owns less than 5% of the Company's Shares.

Dividends

Where Shares are acquired under the ESPP, dividends may be paid with respect to these Shares if the Company, in its discretion, declares a dividend. The dividends received will not be subject to income tax in the Netherlands, but will be subject to U.S. federal income withholding tax. The employee may be entitled to reduce the U.S. federal income withholding tax rate provided that the appropriate certifications concerning domicile in the Netherlands are provided as required by the United States Internal Revenue Service (*i.e.*, Substitute Form W-8/BEN Certificate of Foreign Status and Instructions, available from the brokerage firm(s) retained by the Company).

Annual Investment Tax

The employee will be subject to an investment yield tax (Box III) at a rate of between 0.86% and 1.62% (effectively) based on the value of all of his/her assets (including Shares acquired under the ESPP) as of January 1 of the respective tax year, subject to an annual exemption (€30,000 for 2018). It is the employee's responsibility to report and pay any investment tax due in his/her income tax return.

Withholding and Reporting

The local employer will withhold, on a monthly basis, tax on the ESPP income, together with the income tax on wages, because the spread will be considered a benefit in-kind to the employee. The local employer must report the wage withholding tax on the employee's wage tax return and remit the withheld amount to the tax authorities. The employee is responsible for paying any difference between his/her personal income tax liability and the amount withheld. The employee must also report any taxable benefit derived from the ESPP on his/her personal income tax return.

As with income taxes, the employee's portion of social security contributions, if any, has to be withheld and be remitted by the local employer.

Social security

The income received under the ESPP will be subject to social security contributions at a rate of 27.65% to the extent the annual contribution ceiling (€33,994 for 2018) has not already been exceeded.

LTIP - RSUs

Grant

The employee should not be subject to taxation on the date the Company grants him/her an RSU under the LTIP that is payable in Shares.

Vesting

The employee will be subject to the taxation on the date he/she becomes vested in the RSU and receives Shares and should be taxed, on the fair market value of the Shares at that time. The taxable amount is treated as salary income and as such is subject to wage withholding tax as an advance levy of personal income tax (at progressive rates of up to 52%).

Sale of Shares

When the employee subsequently sells the Shares acquired under the LTIP, the employee will not be subject to capital gains tax on any gain (*i.e.*, the difference between the sale price and the fair market value of the Shares on the vesting date) provided the employee owns less than 5% of the Company's Shares.

Dividends

Where Shares are acquired under the LTIP, dividends may be paid with respect to these Shares if the Company, in its discretion, declares a dividend. The dividends received will not be subject to income tax in the Netherlands, but will be subject to U.S. federal income withholding tax. The employee may be entitled to reduce the U.S. federal income withholding tax rate provided that the appropriate certifications concerning domicile in the Netherlands are provided as required by the United States Internal Revenue Service (*i.e.*, Substitute Form W-8/BEN Certificate of Foreign Status and Instructions, available from the brokerage firm(s) retained by the Company).

Dividend Equivalents

The employee will be subject to income tax and social insurance contributions (subject to the applicable contribution ceiling) on any dividend equivalents paid to him/her.

Annual Investment Tax

The employee will be subject to an investment yield tax (Box III) at a rate of between 0.86% and 1.62% (effectively) based on the value of all of his/her assets (including Shares acquired under the LTIP) as of January 1 of the respective tax year, subject to an annual exemption (€30,000 for 2018). It is the employee's responsibility to report and pay any investment tax due in his/her income tax return.

Withholding and Reporting

The local employer will withhold, on a monthly basis, tax on the LTIP income (*i.e.*, the fair market value of the Shares acquired upon vesting and dividend equivalents), together with the wage withholding tax on wages. The local employer must report the wage withholding tax on the employee's wage tax return and remit the withheld amount to the tax authorities. The employee is responsible for paying any difference between his/her personal income tax liability and the amount withheld. The employee must also report any taxable benefit derived from the LTIP on his/her personal income tax return.

As with income taxes, the employee's portion of social security contributions has to be withheld and be remitted by the local employer.

Social security

The income received under the LTIP (*i.e.*, the fair market value of the Shares acquired upon vesting and dividend equivalents) also will be subject to social security contributions at a rate of 27.65% to the extent the annual contribution ceiling (€33,994 for 2018) has not already been exceeded.

5. United Kingdom

The following is intended to briefly summarize certain tax consequences associated with the acquisition of Shares under (i) The Bank of New York Mellon Corporation Employee Stock Purchase Plan (the "ESPP"), (ii) The Bank of New York Mellon Corporation Share Accumulation Plan ("SAP"), and (iii) The Bank of New York Mellon Corporation Long-Term Incentive Plan (the "LTIP").

This discussion reflects the tax and other law as in effect in the United Kingdom on March 1, 2018, as they apply to employees who are resident and domiciled in the UK. Such laws are often complex and change frequently. In particular, rates of income tax and National Insurance contributions may change in the coming years. As a result, the information contained in this description may be out of date at the time the employee is granted an award, acquires Shares or sells Shares acquired under the ESPP, SAP, and/or the LTIP.

In addition, this description does not discuss all of the various laws, rules and regulations that may apply. It may not apply to the employee's particular tax or financial situation and the Company is not in a position to assure the employee of any particular tax result. **Accordingly, the employee is strongly advised to seek appropriate professional advice as to how the tax or other laws in his/her country apply to his/her specific situation.**

If the employee is a citizen or resident of a country other than the United Kingdom, the information contained in this description may not be applicable to the employee.

Any examples contained within this description are for illustrative purposes only.

ESPP

Enrollment in the ESPP

The employee is not subject to tax when a stock purchase right is granted to him/her under the ESPP (*i.e.*, when the employee subscribes to the ESPP).

Purchase of Shares

When Shares are purchased under the ESPP, the employee will be subject to personal income tax (at the employee's marginal income tax rates) and employee National Insurance Contributions ("NICs") at the applicable rate on the difference (or spread) between the market value of the Shares on the date of purchase and the purchase price. The purchase of Shares under the ESPP will be made using contributions from the employee's post-tax salary.

Example:

- Accumulated contributions at the end of a certain purchase period: US$ 1,500
- Purchase price: US$ 38.00
- Number of Shares purchased: 39
- Stock exchange price on the purchase date: US$ 40.00

The employee will be taxed on the difference between US$ 38.00 and US$ 40.00 (*i.e.*, US$ 2.00) times the number of Shares purchased (*i.e.*, 39) or 39 x US$ 2.00 = US$ 78.00 or GBP 56.16 (at an exchange rate of US$ 1: GBP 0.72). This taxable amount, *i.e.*, US$ 78.00 or GBP 56.16 in the example, will be taxed at the employee's marginal income tax rates. If the employee were, for instance, to be taxed at a 40% rate, the income tax due will amount to US$ 32.20 or GBP 23.18 (at an exchange rate of US$ 1: GBP 0.72). In addition, the employee will be liable to employee NICs on the taxable amount.

Sale of Shares

When the employee subsequently sells the Shares purchased under the ESPP, any gain (*i.e.*, the difference between the sale price and the market value of the Shares on the purchase date) may be subject to capital gains tax.

Capital gains tax is only payable on gains from all sources in excess of the annual personal exemption in any tax year.

The employee will need to take into account the share identification rules in calculating his/her capital gains tax liability.

The capital gains tax rules are complex and their impact will vary according to the employee's own circumstances. **It is recommended that employees obtain their own independent tax advice prior to any acquisition or sale of shares.**

Dividends

Where Shares are acquired under the ESPP, dividends may be paid with respect to these Shares if the Company, in its discretion, declares a dividend. The dividends received will be subject to dividend income tax (but not NICs) in the United Kingdom to the extent that dividends from all sources exceed the annual dividend allowance (the applicable tax rate will depend on the employee's total income). The dividends will also be subject to U.S. federal income withholding tax. The employee may be entitled to reduce the U.S. federal income withholding tax rate provided that the appropriate certifications concerning domicile in the United Kingdom are provided as required by the United States Internal Revenue Service (*i.e.*, Substitute Form W-8/BEN Certificate of Foreign Status and Instructions, available from the brokerage firm(s) retained by the Company). Further, the employee may be entitled to a tax credit against his/her UK income tax for the U.S. federal income tax withheld at source.

Withholding and Reporting

The local employer will withhold income tax and employee NICs due on the spread when Shares are purchased under the ESPP. If the amount withheld is not sufficient to cover the employee's actual liability, he/she will be responsible for paying the difference.

The local employer is also required to report the details of the grant of purchase rights and the purchase of Shares, as well as the tax withheld, to HM Revenue & Customs on its annual UK tax returns (including the online share scheme report).

The employee should report details of any tax liabilities arising from the Shares acquired under the ESPP and Shares sold or disposed of, together with details of any dividend income, to HM Revenue & Customs on his/her annual self-assessment tax return. The employee will be responsible for paying any capital gains tax due as a result of the sale of Shares acquired under the ESPP.

Social security

The employee also will be subject to employee NICs on the income received under the ESPP at the applicable rates.

SAP – Approved Shares

The SAP is a tax preferential employee share plan (a "Schedule 2 SIP") which offers income tax and National Insurance advantages. The SAP is operated in conjunction with a trust (the "Trust") in which the Shares will be held on the employees' behalf. The SAP provides for four main types of Shares to be used. They are:

- "Partnership Shares" - the employee can use up to £1,800 of his/her salary in any tax year (or, if less, 10% of his/her salary in any tax year) to buy Partnership Shares. The trustee of the Trust (the "Trustee") will purchase Partnership Shares on the employee's behalf using contributions deducted from his/her pre-tax earnings.

- "Matching Shares" - his/her employer will give the employee up to two free Shares for each Partnership Share the employee buys, up to the maximum contribution the employee is permitted to make.

- "Free Shares" - his/her employer will award the employee a number of free shares up to a maximum value of £3,600 in any tax year.

- "Dividend Shares" - dividends paid on his/her shareholding by the Company are accumulated and used to buy additional Dividend Shares.

At this time, Free Shares and Matching Shares are not offered under the SAP.

Purchase of Shares

The employee will not be subject to income tax or employee NICs when Partnership Shares, Matching Shares, Free Shares or Dividend Shares are acquired on his/her behalf.

Withdrawal of Shares from the SAP

The tax treatment relating to Shares withdrawn from the Trust depends on the type of Shares withdrawn and the length of time the Shares were held in the SAP. When Shares are withdrawn they cease to be subject to the SAP if:

(a) They are transferred to the employee upon his/her instructions;
(b) The employee transfers his/her interest in the Shares held in the SAP; or
(c) They are sold by the Trustee upon the employee's direction.

Shares cease to be subject to the SAP if the employee ceases to be employed by the local employer, the Company or one of its subsidiaries or affiliates (the "Group"). If Shares cease to be subject to the SAP when the employee ceases to be employed by the Group for one of the specified "Good Leaver" reasons (including injury, disability, redundancy or retirement or a change in control or other circumstances ending the associated status of the local employer), "Good Leaver" treatment should be available as set out below.

Partnership Shares

The employee can sell or transfer Partnership Shares at any time.

The employee will not be liable for income tax or employee NICs in relation to his/her Partnership Shares if they are held in the SAP for five years. If the Partnership Shares are held in the SAP for less than three years, the employee will be liable for income tax and employee NICs calculated on the market value of the Partnership Shares when they cease to be subject to the SAP. If the Partnership Shares are held in the SAP for more than three years but less than five years, the employee will be liable for income tax and employee NICs calculated on the lesser of (i) the contributions used to buy the Partnership Shares and (ii) the market value of the Partnership Shares on the date they cease to be subject to the SAP. Charges to income tax and employee NICs will not apply where the Partnership Shares are withdrawn from the SAP as a consequence of the employee leaving employment for "Good Leaver" reasons.

Matching Shares

The employee is not permitted to withdraw his/her Matching Shares from the SAP for a holding period of between three and five years unless the employee ceases to be employed by the Group. If the employee leaves the Group for any reason other than a Good Leaver reason, the employee will forfeit any Matching Shares he/she has held for less than the specified forfeiture period (which will not be more than three years).

The employee will not be liable for income tax or employee NICs in relation to his/her Matching Shares if:

(a) the Shares are held in the SAP for five years or more; or
(b) the employee ceases to be employed by the local employer for one of the "Good Leaver" reasons described above.

If Matching Shares are held in the SAP for less than three years (*i.e.*, the employee ceases to be employed by the Group for other than a "Good Leaver" reason and has held his/her Shares for the specified forfeiture period or more), the employee will be liable for income tax and employee NICs calculated on the market value of the Shares on the date they cease to be subject to the SAP. If Matching Shares are held in the SAP for more than three years but less than five years, the employee will be liable for income tax and employee NICs based on the lesser of the market value of the Matching Shares at the date of the award and on ceasing to be subject to the SAP.

Free Shares

The employee can be awarded up to £3,600 of free shares each tax year.

The employee is not permitted to withdraw his/her Free Shares from the SAP for a holding period of between three and five years unless the employee ceases to be employed by the Group. If the employee leaves the Group for any reason other than a Good Leaver reason, the employee will forfeit any Free Shares he/she has held for less than the specified forfeiture period (which will not be more than three years).

The employee will not be liable for income tax or employee NICs in relation to his/her Free Shares if:

(a) the Shares are held in the SAP for five years or more; or
(b) the employee ceases to be employed by the local employer for one of the "Good Leaver" reasons described above.

If Free Shares are held in the SAP for less than three years (*i.e.*, the employee ceases to be employed by the Group for other than a "Good Leaver" reason and has held his/her Shares for the specified forfeiture period or more), the employee will be liable for income tax and employee NICs calculated on the market value of the Shares on the date they cease to be subject to the SAP. If Free Shares are held in the SAP for more than three years but less than five years, the employee will be liable for income tax and employee NICs based on the lesser of the market value of the Free Shares at the date of the award and on ceasing to be subject to the SAP.

Dividend Shares

The employee is not permitted to withdraw his/her Dividend Shares from the SAP for a holding period of three years unless the employee ceases to be employed by the Group. The employee will not be liable for income tax (employee NICs are not payable in relation to Dividend Shares in any event) in relation to his/her Dividend Shares if:

(a) the Shares are held in the SAP for three years or more; or
(b) the employee ceases to be employed by the local employer for one of the "Good Leaver" reasons.

If the employee's Dividend Shares cease to be subject to the SAP before three years after their acquisition on his/her behalf, the employee will be liable to income tax on the amount of the cash dividend used to acquire his/her Dividend Shares.

Sale of Shares

If the employee keeps his/her Shares in the SAP until the employee sells his/her Shares, the employee will not have to pay any capital gains tax on any increase in the market value of the Shares while they are in the SAP, however large. The employee will also have no capital gains tax liability if his/her Shares are forfeited under the rules of the SAP.

If the employee takes his/her Shares out of the SAP and sells them later, the employee may be subject to capital gains tax on any difference between the sale price of the Shares and the market value of the Shares at the time they were withdrawn from the SAP.

Capital gains tax is only payable on gains from all sources in excess of the annual personal exemption in any tax year.

The capital gains tax rules are complex and their impact will vary according to the employee's own circumstances. **It is recommended that employees obtain their own independent tax advice prior to any acquisition or sale of shares.**

Dividends

Where Shares are acquired under the SAP, dividends may be paid with respect to these Shares if the Company, in its discretion, declares a dividend. Any dividends received in relation to Shares that have been removed from SAP will be subject to dividend income tax (but not NICs) in the United Kingdom to the extent that dividends from all sources exceed the annual dividend allowance (the applicable tax rate will depend on the employee's total income). The dividends received will also be subject to U.S. federal income withholding tax. The employee may be entitled to reduce the U.S. federal income withholding tax rate provided that the appropriate certifications concerning domicile in the United Kingdom are provided as required by the United States Internal Revenue Service (*i.e.*, Substitute Form W-8/BEN Certificate of Foreign Status and Instructions, available from the brokerage firm(s) retained by the Company). Further, the employee may be entitled to a tax credit against his/her UK income tax for the U.S. federal income tax withheld at source.

Withholding and Reporting

Selling Shares held in the SAP

If the employee keeps his/her Shares in the SAP until the employee sell his/her Shares and an income tax and NICs liability arises on sale (as described in the 'Withdrawal of Shares From the SAP" section above), the Trustee will send the proceeds of sale to the employee's employing company. The local employer will then deduct the appropriate sum from the proceeds through the PAYE system and pay this to HM Revenue & Customs on the employee's behalf. The employee will be taxed on the amount indicated in the "Withdrawal of Shares From the SAP" section above. Income tax will be due on the taxable amount at his/her marginal income tax rate and employee NICs will be due at the applicable rate on the same amount.

Transfer of Shares out of the SAP

If the employee transfers his/her Shares out of the SAP and an income tax and NICs liability arises on withdrawal (as described in the "Withdrawal of Shares From the SAP" section above) the Trustee will notify the employee of the income tax and employee NICs to be paid. When the Trustee has received this sum from the employee, it will pay the income tax and employee NICs to HM Revenue & Customs on the employee's behalf and arrange for his/her name to be entered on the register of shareholders of the Company.

Please note that the Trustee is able to discharge any PAYE obligation that arises where the employee's Shares cease to be subject to the SAP by (i) arranging for the employee to pay a sum equal to the PAYE obligation; or (ii) selling a sufficient number of the employee's Shares held in the SAP and using the proceeds to meet that obligation.

The local employer is required to report the details of the tax withheld and other aspects of the operation of the SAP to HM Revenue & Customs on its annual UK tax returns (including the online share schemes report). The Trustee also has reporting obligations in relation to the SAP.

It is the employee's responsibility to report any transaction relating to the SAP where taxable income arises, the subsequent sale of Shares that have ceased to be held in the SAP or the receipt of any dividends on his/her annual UK Tax Return. In addition, the employee will be responsible for paying any taxes due as a result of the sale of Shares no longer held in the SAP or the receipt of dividends.

Social security

Please refer to the 'Withdrawal of Shares from the SAP' section above for information related to the employee's NICs obligation (if any).

LTIP - RSUs

Grant

The employee should not be subject to taxation on the date the Company grants him/her an RSU under the LTIP that is payable in Shares.

Vesting

The employee will be subject to taxation on the date the RSU vests and the employee receives Shares, and he/she will be taxed on the market value of the Shares at that time. The taxable amount will be classified as employment income and will be subject to income tax at the employee's marginal tax rates and employee NICs at the applicable rates.

Sale of Shares

When the employee subsequently sells the Shares acquired under the LTIP, any gain (*i.e.*, the difference between the sale price and the market value of the Shares on the vesting date) may be subject to capital gains tax.

Capital gains tax is only payable on gains from all sources in excess of the annual personal exemption in any tax year.

The employee will need to take into account the share identification rules in calculating his/her capital gains tax liability.

The capital gains tax rules are complex and their impact will vary according to the employee's own circumstances. **It is recommended that employees obtain their own independent tax advice prior to any acquisition or sale of shares.**

Dividends

Where Shares are acquired under the LTIP, dividends may be paid with respect to these Shares if the Company, in its discretion, declares a dividend. The dividends received will be subject to dividend income tax (but not NICs) in the United Kingdom to the extent that dividends from all sources exceed the annual dividend allowance (the applicable tax rate will depend on the employee's total income).

The dividends will also be subject to U.S. federal income withholding tax. The employee may be entitled to reduce the U.S. federal income withholding tax rate provided that the appropriate certifications concerning domicile in the United Kingdom are provided as required by the United States Internal Revenue Service (*i.e.*, Substitute Form W-8/BEN Certificate of Foreign Status and Instructions, available from the brokerage firm(s) retained by the Company). Further, the employee may be entitled to a tax credit against his/her UK income tax for the U.S. federal income tax withheld at source.

Dividend Equivalents

The employee will be subject to income tax and NICs on any dividend equivalents paid to him/her.

Withholding and Reporting

The local employer will withhold income tax and employee NICs on the market value of the Shares acquired upon vesting and dividend equivalents. If the amount withheld is not sufficient to cover the employee's actual liability, he/she will be responsible for paying the difference.

The local employer is required to report the details of the grant of RSUs and the acquisition of Shares, as well as the tax withheld, to HM Revenue & Customs on its annual UK tax returns (including the online share schemes report (including the online share scheme report).

The employee should report details of any tax liabilities arising from the Shares acquired under the LTIP and Shares sold or disposed of, together with details of any dividend income, to HM Revenue & Customs on his/her annual self- assessment tax return. The employee will be responsible for paying any capital gains tax due as a result of the sale of Shares acquired under the LTIP.

Social security

The employee also will be subject to employee NICs on the income received under the LTIP (*i.e.*, the market value of the Shares acquired upon vesting and dividend equivalents) at the applicable rates.

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