Update on Asset management and Non-bank financial intermediation in Belgium

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FSMA
FINANCIAL SERVICES AND MARKETS AUTHORITY

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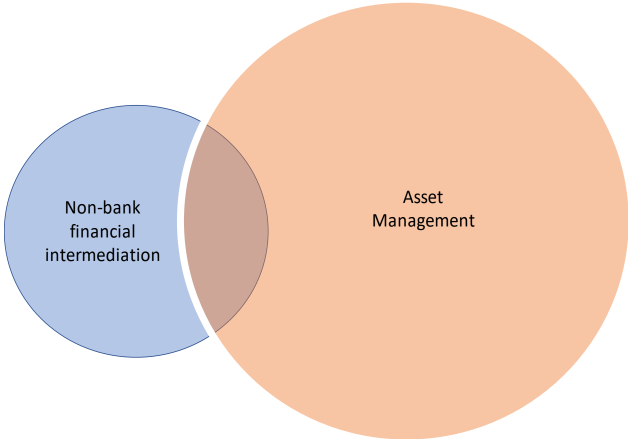
I. Introduction

In line with the Financial Stability Board (FSB)'s decision in October 2018 to change the terminology, this annual joint report of the National Bank of Belgium (NBB) and the Financial Services and Markets Authority (FSMA) henceforth uses the better-suited term *Non-Bank Financial Intermediation* (NBFI) for what was previously called *shadow banking*. This terminology change does not affect the substance or the coverage of the current report compared to the first extensive report published in 2017. It is reminded that this initial report constituted the follow-up of a recommendation included in the report that the High Level Expert Group (HLEG) on the Future of the Belgian Financial Sector submitted to the Minister of Finance in 2016. The joint NBB-FSMA report of 2017 and the subsequent updates are available on the websites of the NBB and FSMA.[1]

Non-bank financial intermediation and asset management



The current edition analyses and documents the most recent developments in asset management and non-bank financial intermediation in Belgium along the same lines as the previous reports (with all the updated quantitative data in the statistical annex). Chapter II starts with an overview of the Belgian asset management sector, based on various definitions and data sources that can be used to document the size of different forms and types of asset management-related activities. Chapter III then proceeds to the analysis of the Belgian NBFI sector according to two delineation methodologies (FSB and EBA definition), together with an international comparison. This is followed, in Chapter IV, by a description of the NBB-FSMA monitoring framework for the — partly overlapping — Belgian asset management and NBFI sectors and for the interconnectedness between Belgian residents and NBFI entities worldwide. A review of the relevant national and international regulations and ongoing policy work can be found in Chapter V. A final chapter contains the main conclusions and policy findings.

[1] www.nbb.be ; www.fsma.be

II. Overview of the Belgian asset management sector

This chapter discusses the asset management sector and its 'ecosystem' in Belgium, with a focus on key developments in 2019 and 2020. The chapter reviews the size and composition of the Belgian investment fund sector, the assets under management and investment advice of the Belgian asset managers and Belgian residents' investments in foreign investment funds. It further discusses the importance of asset management for Belgian banks, insurance companies and institutions for occupational retirement provision. While the former interact with the asset management sector in a variety of ways, the latter two types of institutions invest significant amounts of their assets in investment funds.[2]

Chart 2.1 presents a schematic overview of the asset management ecosystem with an estimated size of these activities. Table 2.1 presents gross statistics on the assets involved in the different asset management entities and activities from 2016 to 2020, as discussed in the following sections.

2.1 Belgian investment funds[3]

The net asset value of Belgian investment funds increased from € 164 billion at the end of 2018 to € 191 billion at the end of 2020 (€ 185 billion at the end of 2019). The increase is mainly driven by higher market valuations of assets in the fund portfolios since the end of 2018. Despite the pronounced market turbulence witnessed at the beginning of 2020, Belgian investment funds proved to be resilient and no Belgian fund had difficulties to redeem the holdings of its investors.

2.1.1. Belgian public open-ended investment funds

Public open-ended investment funds — i.e. undertakings for collective investment in transferable securities (UCITS) and public open-ended alternative investment funds (AIFs) — represented € 172 billion or about 90% of the net asset value of the Belgian investment fund sector at the end of 2020 (Table 2.2b and Chart 2.3).[4] The size of the public open-ended investment funds increased by 17% as compared to 2018 (a 12% increase from 2018 to 2019 and 4% increase from 2019 to 2020). UCITS represent 94% of the segment of Belgian public open-ended investment funds, compared to 68% at the end of 2016, and 92% at the end of 2019. The increase in the relative importance of UCITS over the years has been accompanied by a trend towards an increase in the number of UCITS sub-funds and UCITS net assets. UCITS net assets have increased from € 81 billion at the end of 2016 to € 152 billion at the end of 2019 and € 162 billion at the end of 2020. Simultaneously, the number of public open-ended sub-funds that qualify as AIFs, as well as their total net assets, continued to decrease (from € 46 billion at the end of 2016 to € 12 billion at the end of 2019 and € 10 billion at the end of 2020).

The growing size of the segment of the Belgian UCITS, both in relative and in absolute terms, appears to be a longer-term trend, for which there are a number of explanations.

[2] The data used in this chapter to measure different aspects related to asset management in Belgium are a combination of financial accounts data of the National Accounts Institute (NAI), data reported to the FSMA by the entities under its supervision and prudential supervisory data available at the NBB for banks and insurance companies.

[3] The different types of Belgian investment funds are reminded in Chart 2.2.

[4] The reported total size of the Belgian investment fund sector is an estimated lower bound because for some Belgian non-public investment funds statistics are not reported to the FSMA. However, the total size of the industry is in line with statistics from the national accounts data from the NBB.

First, a large part of the sub-funds of Belgian AIFs were 'structured' (sub-)funds[5], which were historically not established as UCITS. These funds were, generally, intended for the Belgian retail market and no European passport was needed. As the number of structured funds has declined over the past years, so has the importance of public open-ended AIFs[6]. During 2019 and 2020, net assets of AIF structured funds have further decreased from € 2.1 billion to € 0.9 billion in 2019 and € 0.05 billion in 2020.

Second, since 2018, a number of Belgian public open-ended investment funds initially established as AIFs, including some of the largest pension savings funds, have requested an authorisation as UCITS. While these investment funds need to comply with the rules set out in the UCITS framework after their new authorisation, in practice this was already the case. Belgian public open-ended AIFs are subject to a regulatory regime highly similar to that of UCITS in order to ensure an equal level of investor protection for retail investors. The conversion of some investment funds to UCITS is likely to have been driven, at least partially, by the rules with regard to the provision of investment services introduced under Mifid II[7] which apply since 3 January 2018. Under those new rules, shares or units of AIFs are considered to be 'complex' and cannot qualify anymore as financial instruments for which investment firms are allowed to provide investment services that only consist of execution or reception and transmission of certain client orders ("execution only").[8]

Third, and in line with the first two explanations, all but one public open-ended investment funds launched since 2016 were set up under the UCITS regime. Pension savings funds remain the largest category of public open-ended AIFs with close to € 7 billion (73%) of net assets.

The UCITS segment is dominated by mixed funds (€ 66 billion or 41%) which often invest indirectly into several asset classes by investing in units of other investment funds (€ 55 billion or 34%). Equity funds are the second largest category within the UCITS segment, with net assets amounting to € 55 billion (34%). Net assets in this type of funds increased strongly in 2019 and after a sharp decline in the first quarter of 2020, they reached their highest level at the end of 2020. The variations in equity market valuations, as well as flows in and out of equity funds, caused these movements. Bond funds are the third largest category within the UCITS segment. Their net assets amount to € 19 billion (12%), about 45% of which is invested indirectly through fund-of-fund structures. Net assets of UCITS money market funds have decreased from € 9 billion in 2018 to € 3 billion at the end of 2020 driven by net outflows. However, following the COVID-19-related market turmoil during March 2020 Belgian money market funds saw strong inflows during this month. As a consequence, UCITS money market fund net assets increased from € 2 billion at the end of 2019 to € 9 billion at the end of March 2020. Box 4 provides a description of the events that occurred in the MMF industry during the March 2020 market turmoil episode.

Overall, fund of funds or feeder funds account for 41% of the gross net asset value of the Belgian public open-ended investment funds (€ 70 billion out of € 172 billion).

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5 Structured sub-funds provide investors, at certain predetermined dates, with algorithm-based payoffs that are linked to the performance, or to the realisation of price changes or other conditions, of financial assets, indices or reference portfolios or sub-funds with similar features. See Box 2.1 of the report published in 2017 for more information on structured products.

6 The number of structured sub-funds has decreased during recent years because there are relatively fewer structured sub-funds established compared to existing structured sub-funds reaching maturity each year.

7 Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU.

8 Article 25 (4) of Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU.

Table 2.4 and Chart 2.5 show the balance sheet composition of Belgian public open-ended investment funds at the end of 2020 by fund category. The composition is in line with their investment policy. Because of their high reliance on fund of fund structures, mixed funds invest up to 85% of their net assets in units of other investment funds. Bond fund portfolios also contain a significant share of units of other investment funds (45%). Pension savings funds are mixed funds, with the majority invested in shares or similar instruments (60%) and the remaining part of the portfolio largely invested in bonds, money market instruments or other debt instruments. Structured funds and non-classified ("other") funds invest the bulk of their assets in fixed-income instruments, while a smaller part is invested in derivatives.

It should be noted that UCITS and Belgian public open-ended AIFs are subject to detailed asset eligibility rules, in order to ensure that they invest in liquid assets. In addition, these funds are subject to strict diversification requirements. Their managers are also subject to due diligence requirements before carrying out investments: where it is appropriate after taking into account the nature of a foreseen investment, managers should formulate forecasts and perform analyses concerning the investment's contribution to the fund's portfolio composition, liquidity and risk and reward profile.

Box 1 : The Close Monitoring of Belgian Public Funds during the COVID-19 Crisis

The consequences for the asset management sector of both the COVID-19 pandemic and the resulting market turmoil, have been a primary concern for the FSMA. From March 2020, the FSMA has actively engaged with the industry in two ways.

Through (initially daily) updates with the main management companies of Belgian public funds (covering the vast majority of AUM) the FSMA collected information related to:

- the largest redemption and subscription orders for public funds for which they are designated as management company;
- any liquidity problems encountered during the execution of orders;
- the composition and rotation of assets in the portfolios;
- the market expectation of the management companies;
- the implementation of the business continuity plan and the operational problems encountered following contamination and containment.

A weekly reporting of a limited dataset enabled the FSMA to monitor, at the sub-fund level and for all authorised public open-ended investment funds:

- redemptions and subscriptions;
- the evolution of the net asset value;
- the use of liquidity management tools;
- whether regulatory limits were exceeded (short-term borrowing, leverage, diversification);
- the use of mark-to-model valuations instead of mark-to-market valuations for a significant part of the portfolio.

The engagement with the industry has enabled the FSMA to monitor continuously each Belgian public open-ended fund during the crisis. The close monitoring of the funds included, among other things, the determination of the causes of changes in the net assets, the assessment of potential liquidity risks and the identification of outliers. For the sector as a whole, the engagement with the industry has enabled the FSMA to assess quickly the development of trends and risks, to compare the crisis with other stress situations and to provide up-to-date, valuable and accurate input for the regular interactions with national and international stakeholders during the crisis.

The Belgian public open-ended investment fund industry is characterised by a high degree of concentration (Table 2.5 and Chart 2.6). At the end of 2020, nearly 50% of the total net assets were held by the 43 largest sub-funds (sub-funds with more than € 1 billion net assets, 6% of the total number of sub-funds), while the smallest sub-funds (sub-funds with less than € 100 million net assets, 63% of the total number of sub-funds) held only 9% of the total net assets. All structured sub-funds are classified into the 2 smallest size buckets, but as they only account for 2% of the total net assets, a similar picture emerges when structured sub-funds are excluded.

2.1.2. Other AIFs

Non-public AIFs represented € 19.7 billion at the end of 2019 and € 18.7 billion at the end of 2020 (both are lower bounds)[9]. This is an increase from the € 17.5 billion net assets at the end of 2017 (Table 2.2b). The number of institutional open-ended AIFs (at sub-fund level) registered by the Federal Public Service Finance decreased from 127 at the end of 2018 to 114 at the end of 2020. Specialised real estate funds and private privak/pricaf registered by the FPS Finance experienced an opposite trend, as their numbers increased from 65 to 114 and 37 to 149 respectively over the same period.

Some Belgian closed-ended types of AIFs (with a listing requirement) can also be publicly offered in Belgium. Of these fund types currently only one public privak/pricaf is authorised, while currently there are no public real estate funds anymore (and neither are there institutional real estate funds).

A number of AIF types have been designed against the background of the EU Capital Markets Union (CMU): EuVECAs, EuSEFs, ELTIFs and (public and private) starter funds. No Belgian investment funds of these types have been yet registered or authorised in Belgium.

Box 2 : ESMA statistical report on EU Alternative Investment Funds

On 10 January 2020, **ESMA** published its **second statistical report** on EU **Alternative Investment Funds (AIFs)**. The statistics in the report are based on data reported by AIFMs (to their National Competent Authorities (NCAs)) on the AIFs they were managing at the end of 2018. The data collected covers 99% of the market. The objectives of the report are to contribute to the risk assessment work at ESMA, to facilitate the oversight of entities by NCAs and to contribute to supervisory convergence. The latter objectives are primarily achieved through the data standardisation and development of statistical methods, including risk indicators.

ESMA estimates that the EU AIF industry had a net asset value (NAV) of € 5.8 trillion at the end of 2018. Funds of funds accounted for 14% of the NAV, followed by real estate funds (12%), hedge funds (6%) and private equity funds (6%). The residual category 'other AIFs' accounted for 61% of the NAV (with fixed income and equity strategies accounting for 67% of that 'other AIFs' category). Most AIFs were sold to professional investors (84%). Use of leverage by AIFs was found to be limited, with the notable exception of hedge funds. The size of the hedge fund sector amounted to € 333 billion in NAV, or 6% of all AIFs. However, when looking at gross exposure they total 67% of all AIFs due to their heavy reliance on the use of derivatives. These funds are exposed to financing risk, as one third of their financing is overnight. However, they appear to manage this risk by maintaining large cash buffers. Hedge fund leverage stems mainly from their use of derivatives to increase their exposure (synthetic

9 Not all entities that take the legal form of an institutional open-ended AIF, a specialised real estate fund, a private privak/pricaf or a private starter fund under Belgian law are classified as AIFs under the provisions of AIFMD. In addition, Belgian AIFs may have a manager for which the FSMA is not the competent authority. The FSMA only receives a reporting for Belgian AIFs classified as AIFs under the provisions of the AIFMD, provided that the FSMA is the competent authority of the manager of the AIF. As such, the estimated size of the net assets of these types of AIFs constitutes only those that qualify as AIF under the provisions of the AIFMD, and which are managed by a manager for which the FSMA is the competent authority receiving the reporting, and it is thus a lower bound.

leverage), rather than from direct borrowing. There are signs of potential liquidity risks in the real estate fund sector. Some types of real estate funds offer daily liquidity. In addition, the liquidity profiles of their assets and investors points to aggregate liquidity mismatches across all time periods, which could indicate a structural vulnerability as they invest in illiquid assets while allowing investors to redeem their shares over a short time-frame. The structural vulnerability of real estate funds has been underlined in the ESRB recommendation published in May 2020 and the following focused piece of supervisory exercise undertaken by ESMA with NCAs[10].

The report indicates that the AIF industry is concentrated in a few countries, with the top six accounting for more than 90% of the NAV: Germany, the United Kingdom, the Netherlands, France, Luxembourg and Ireland. The size of the AIF industry is relatively modest in Belgium (see section 2.1 of Chapter II and Table 2.2b). As such, the report does not focus on Belgium.

2.2 Belgian asset managers

The number of Belgian asset managers (UCITS management companies and authorised AIFMs) has grown to 15 asset managers in 2020 (from 13 in 2018 and 14 in 2019) (Table 2.6), with 8 of the 15 authorised Belgian asset managers holding a double authorisation. The total assets under management (AuM) of the 15 Belgian asset managers amounted to € 268 billion (€ 219 billion at the end of 2018 and € 246 billion at the end of 2019), of which € 165 billion were in the form of collective management and € 104 billion in the form of discretionary management, while the assets for which they provide investment advice amounted to € 9 billion. The increase in assets under management is due to a combination of a positive evolution in market valuation and inflows.

2.3 Foreign investment funds distributed in Belgium

Investment funds from other Member States of the European Economic Area (EEA) that can be publicly offered in Belgium consist of UCITS and AIFs. For UCITS, a passport regime exists to facilitate the trading of units in these funds across borders. UCITS from other Member States of the EEA need to be notified at the FSMA before their units can be publicly distributed in Belgium. At the end of 2020, 4,513 UCITS sub-funds from other Member States of the EEA were notified and subsequently registered by the FSMA. This figure represents an increase compared to 2018 and 2019 (Table 2.7). In terms of umbrella-funds, the number remained rather stable in the past 3 years at around 550. Since the supervisor of the home country is the competent authority for these funds, no exact statistics on these foreign UCITS' net assets are available in the present report.

Open-ended AIFs from other Member States of the EEA that have the intention to publicly offer units in Belgium need to be registered with the FSMA. These AIFs need to comply with the relevant Belgian legislation and the FSMA monitors their activities. Two open-ended public AIFs from other Member States of the EEA were registered at the end of 2020 (of which 4 sub-funds were registered). Their net assets amounted to around € 0.4 billion[11]. While the number of notified UCITS from other Member States of the EEA has been steadily increasing, the number of registered public open-ended AIFs from other Member States of the EEA remained stable since the end of 2018. However, there has been a large decline as regards these registered public open-ended AIFs compared to 2016 and 2017, when respectively 40 and 17 sub-funds were registered with a total net asset value of, respectively, € 5.6 and € 5.0 billion.

[10] For further information see *Assessment of liquidity risk for corporate debt and real estate funds* in Chapter 5.

[11] This amount is the total size of their net assets, and not the value of their units held by Belgian residents. If these AIFs are also offered in other countries, the value of public open-ended AIF units held by Belgian residents is necessarily lower.

Although the net asset value (NAV) of foreign investment funds distributed in Belgium is not as such available, the securities holdings statistics (SHS) allow to identify the amount of foreign investment funds *held by Belgian residents* (Table 2.8 provides a breakdown by holding sector and by issuing country). According to this data source, holdings of foreign funds by Belgians increased between 2018 and 2019, rising from € 201 billion up to € 236 billion, with households making up a significant proportion of these holdings as they increased from € 95 billion up to € 106 billion. The most recent data allow to take into account the impact of Covid-19 on the evolution of foreign fund holdings up to the end of September 2020. They show that the total foreign investment fund holdings of Belgian residents dropped over one quarter to € 210 billion (€ 94 billion for households) at the end of March 2020. This sudden fall, mainly attributable to large valuation effects, was mitigated rapidly since the levels at the end of 2019 were again observed as of the end of September 2020 (a total of € 235 billion, of which € 108 billion for households).

Another contribution of the SHS data is that they allow to identify the *source* of foreign investment funds held by Belgian residents. These funds are mainly concentrated in six issuing countries (of which five are European) and this has been stable over time. Luxembourg is by far the biggest source of foreign investment fund holdings with € 188 billion at the end of September 2020 (€ 185 billion at end 2019). It is followed by France with € 29 billion (€ 23 billion at end 2019), Ireland with € 18 billion (€ 17 billion) and Germany with € 7 billion (€ 7 billion). The Netherlands and USA are the fifth and sixth issuing countries with total holdings for each amounting to less than € 1 billion in the same period. The source of foreign investment fund holdings by Belgian residents has remained stable over time.

2.4 Belgian banks and asset management activities

Belgian banks deploy different types of asset management-related activities. First, Belgian banks, including their subsidiaries worldwide, provide management for assets belonging to their customers. Second, they also distribute investment funds which are issued by entities outside the bank. Besides that, Belgian banks also provide some auxiliary services within the asset management sector, such as custodian services and central administration services for investment funds.

Over a longer horizon, banks have put a commercial effort to develop their asset management activities in order to mitigate the pressure on their net interest income in the low interest rate environment. While Belgian banks earned an annual fee and commission income of € 2.0 billion on their asset management activities in 2016, this increased to € 2.7 billion in 2019. Over the course of 2020 the fee and commission income slightly decreased to € 2.6 billion (Table 2.9).

The amount of client assets involved in these activities is sensitive to changes in the market value of these assets, so that developments between periods can be volatile. Taking all client assets together, they reached € 621 billion at the end of 2020, compared to € 617 billion at the end of 2019 and € 545 billion at the end of 2018. The positive trend in the total of client assets involved continued over the course of 2020 despite the turmoil on the financial market caused by the coronavirus crisis.

Around two-thirds of the amount end 2020 relates to assets managed within Belgian banks (€ 406 billion) which is a percentage that remained quite stable during the last years. Since the figures provided are based on consolidated accounts, this amount also includes assets managed by subsidiaries of Belgian banks. Given that some Belgian asset managers are full subsidiaries of Belgian banks, there thus exists an overlap with the AuM of Belgian asset managers as mentioned in section 2.2 (Chart 2.7). However, the assets managed within Belgian banks are broader in scope, since they also include assets managed by foreign subsidiaries of those Belgian asset managers, as well as assets managed by other foreign asset managers that are in the consolidation scope of Belgian banks. In addition, Belgian banks also provide discretionary management of portfolios directly, without the intervention of a (consolidated) asset manager.

The above-mentioned € 406 billion can be broken down into € 262 billion of assets under collective management and € 144 billion of assets under discretionary management. The figures show that there has been a continuous increase in the contribution of collective management over the last 5 years at the expense of discretionary management. The amount of collective investment products distributed by Belgian banks but issued by entities outside of their consolidation scope reached € 215 billion at the end of 2020.

Belgian banks also earn fee and commission income on custodian and central administrative services. Jointly, the income earned on these services in 2020 (€ 906 million) was significantly higher than last years as the assets involved in these services increased. This increase was mainly concentrated in assets under custody, and more specifically in those other than for collective investment (the latter increased from € 2,375 billion assets involved end 2018 to € 2,782 billion end 2020).

2.5 Belgian insurance companies and asset management activities

Belgian insurance companies invest significant amounts in investment funds, be it as covering assets for the unit-linked life insurance business (so-called "class 23" contracts in the Belgian law) or as part of the non-unit-linked investment portfolios (Chart 2.8 and Tables 2.10 and 2.11). Insurers can also give a (discretionary) investment mandate to a bank or asset manager in order to manage a certain portfolio of assets, which can e.g. be the case for some of the internal insurance funds offered in class 23 contracts.

In unit-linked life insurance contracts, insurers offer a non-guaranteed return to their policyholders, which is linked to the performance of an investment fund. As regards the Belgian unit-linked insurance business, Belgian insurers' technical provisions for class 23 contracts amounted to € 44.3 billion at the end of 2019 on an unconsolidated basis (up from € 31.4 billion in 2016), covered almost entirely by units of investment funds (€ 40.1 billion) and a small amount of (mainly term) deposits (€ 2.2 billion). Class 23 premiums reached € 3.3 billion in 2019 (versus € 2.1 billion in 2016). Although information on class 23 premiums are not yet available for 2020, indications based on Solvency II reporting suggest that gross premiums for unit-linked contracts were down by 10% compared to December 2019, probably due to the impact of the Covid 19 crisis on financial market volatility, the risk averse character of Belgian households and their increasing savings in 2020. As a reminder, for some years now, life insurers have tried to direct their policyholders and new life insurance production towards class 23 products, for which the investment risk is borne by the policyholder. This can partly be explained by the low interest rate environment that affects the attractiveness of the more traditional products offering minimum guaranteed rates of return (with profit-sharing).

Apart from their investments in external funds in the context of their class 23 business, Belgian insurers also invest in units of collective investment (UCIs) as part of their covering assets for life (other than class 23) and non-life insurance products or as free investment assets. At the end of 2019, these marked-to-market investments amounted to € 16.2 billion, compared to € 12.5 billion in 2018, reflecting insurers' search-for-yield behaviours as well as the good performance in global financial markets in 2019. This increasing investment in UCIs continued in Q3 2020 in the context of a lower for longer interest rate environment, by reaching € 17 billion. Broken down by type of fund, the larger share was located in debt funds (€ 6.7 billion), real estate funds (€ 1.9 billion), equity funds (€ 1.7 billion), and money-market funds (€ 1.4 billion). Around € 6.2 billion of these funds were issued in Luxembourg, € 4.4 billion in France, € 2.6 billion in Ireland, € 2 billion in Belgium and € 0.8 billion in the Netherlands. Their custodian was mainly located in Belgium (€ 9.8 billion) and Luxemburg (€ 2.5 billion).

2.6 Belgian institutions for occupational retirement provision and asset management activities

At the end of 2020, there were 175 Belgian institutions for occupational retirement provision (or "pension funds") authorised, accounting for about € 43 billion total assets (Table 2.12). Belgian pension funds had invested 77% of those assets (€ 33 billion) in investment funds.

III. Overview of the Belgian NBFI sector

3.1 Delineation of the Belgian NBFI sector

The Financial Stability Board (FSB) defines non-bank financial intermediation (NBFI)[12] as "*credit intermediation that involves entities and activities outside the regular banking system, and therefore lacking a formal safety net*". This definition does not mean that NBFI escapes from regulatory requirements, rather that it is regulated in a different manner than 'regular' banks.

The NBFI aggregate as such is not defined in the financial accounts, hence it is approximated by adding the financial assets of several entity types. Different definitions for the Belgian NBFI aggregate can be used and this report focuses on the following two main definitions : the EBA framework and the FSB framework. The NBFI aggregate amounted – respectively at the end of 2019 and at the end of the third quarter of 2020 – to € 11.5 billion and € 14 billion for the EBA framework and € 137 billion and 138 billion according to the FSB framework.

The delineation of the Belgian NBFI aggregate starts from the very broad FSB-defined "NBFI sector"[13] which is the sum of the financial assets of all non-bank financial entities, pension funds and insurance companies. It is calculated by using flow of funds data in the financial accounts. The broad Belgian NBFI sector amounted to € 1,242 billion at the end of 2019 and to € 1,210 billion three quarters later. Conversely, the financial assets of the banking sector[14] amounted to € 999 billion and € 1,095 billion, respectively. In the former case, it is a 5% increase between the end of 2018 and the end of 2019, followed by a 3% decrease at the end of September 2020. In the latter case, in comparison, there was an increase by 4% and then again by 10% (Chart 3.1). However, this broad NBFI sector consists of a wide variety of financial entities and not all of them should be considered as posing bank-like financial stability risks. Therefore, the FSB narrows down this concept towards non-bank credit intermediation that poses bank-like risks to the financial system and is undertaken by entities that are *not* part of the prudential consolidation scope of a banking/insurance group. These bank-like risks are *maturity transformation*, *liquidity transformation*, *leverage* and *credit risk transfer*. The main difference between the FSB and EBA methodologies is the narrowing down which is interpreted in different ways and thus leads to a diverging magnitude of the NBFI aggregate. The NBFI aggregate is then referred to as the "narrow measure".

The narrowing down of the Belgian NBFI broad measure according to the framework developed by the FSB is based on five economic functions (EF).[15] If non-bank financial entities and activities are assessed by authorities to present bank-like risks (e.g. maturity/liquidity transformation and leverage), they are classified in an economic function (see the 2017 report for more details about the economic functions and the methodology underlying the process of narrowing down to the Belgian NBFI aggregate). **The Belgian NBFI narrow measure, delineated according to this FSB methodology, amounted to approximately € 137 billion at the end of 2019 and € 138 billion at the end of the third**

[12] Since the 2019 FSB Global Monitoring Report edition on Non-Bank Financial Intermediation, this has become the new term for the former FSB-terminology *shadow banking*.

[13] Previously called MUNFI, the monitoring universe of non-bank financial intermediation. For the 2020 FSB Global Monitoring Report on Non-Bank Financial Intermediation, the FSB decided to modify this terminology to be less technical and gain better public accessibility.

[14] Excluding the central bank sector.

[15] The five economic functions are defined as follows : EF1: Management of collective investment vehicles with features making them susceptible to runs; EF2: Loan provision that is dependent on short-term funding; EF3: Intermediation of market activities that is dependent on short-term funding or on secured funding of client assets; EF4: Facilitation of credit creation/insurance or guarantees of financial products; EF5: Securitisation-based credit intermediation and funding of financial entities.

quarter of 2020 (versus € 139 and € 148 billion at the end of 2018 and 2017, respectively), representing roughly 29 % of GDP or 14 % of the size of the Belgian banking sector (Chart 3.2).

The bulk of the Belgian NBFI narrow measure consists of investment funds, which are classified under economic function 1 (Chart 3.3). EF1 includes the Belgian money market and non-equity investment funds, which are almost all open-ended and hence susceptible to run risks. Their amount remained stable in 2019 and 2020[16] compared to 2018 at around € 129 billion. This EF was the main reason for the decline in the NBFI narrow measure after the market turmoil at the end of 2018 (mainly due to a negative price effect reflected in the market value of investment funds). Although its level remained stable since then, there have been some movements in its composition in recent periods. Between the end of 2018 and the end of 2019, financial assets of money market funds (MMF) declined by 80% falling from € 12 billion to € 2 billion, while at the same time those of non-equity investment funds increased by 8% from € 117 billion to € 127 billion. While the decline in MMFs is only characterised by large outflows, the increase in non-equity investment funds is mainly explained by a double inverted movement in mixed funds. Indeed, mixed funds faced small outflows (€ 1.3 billion) and a large positive valuation effect (€ 11.6 billion). The rest of the variation is explained by fixed income funds and other funds that faced larger outflows (€ 2.4 billion) and a smaller positive valuation effect (€ 1.7 billion) (Chart 3.4). At the end of the third quarter of 2020, the situation had reverted with financial assets of MMFS having more than doubled to € 5 billion and those of non-equity investment funds having decreased to € 124 billion (Chart 3.5). In fact, due to some local market peculiarities, the following phenomenon occurs : at time of distress, financial assets of MMFs tend to increase at the expense of non-MMF funds, whereas at calmer times, the opposite happens.[17]

The second category of the Belgian NBFI narrow measure is EF2 (loan provision that is dependent on short-term funding). This bank-like loan intermediation is performed by financial entities such as leasing and factoring companies, lenders in consumer and mortgage credit and other entities that are not consolidated in a banking/insurance group. The measure of EF2 has remained stable at a low level at the end of 2019 and 2020[18] (€ 2.4 billion versus € 3.5 billion at the end of 2018).

The third and last category of the Belgian NBFI narrow measure is classified under EF5 and consists of securitisation activities by financial vehicle corporations that are not retained on the balance sheets of Belgian banks. At the end of 2019, this EF amounted to € 5.6 billion, which is very similar to the level recorded at the end of 2018 (€ 5.7 billion). The latest available data (at end September 2020) show that EF5 slightly increased up to € 6.4 billion but overall, it remains stable at a low level.

Under the European Banking Authority (EBA) framework, the Belgian NBFI narrow measure amounted to € 11.5 billion at the end of 2019 and € 14 billion at the end of September 2020, compared to € 21.5 billion at the end of 2018. This is lower than the FSB narrow measure, since only Belgian money market funds and AIFs with a leverage that exceeded 300% or that were granting/purchasing loans[19] are included in EF1 of the EBA narrow measure. This is also the reason why this measure shows relatively more fluctuations over time than the FSB narrow measure: as explained above, MMFs experienced large changes over small periods of time, while the two other economic functions (EF2 and EF5) – which are defined in the same way under the two methodologies – remained stable.

[16] Data are for end of September 2020.

[17] More details on (Belgian) MMFs can be found in Box 4 (section 5.1).

[18] Since no data were available for 2020, we reuse the data of end 2019.

[19] The NAV of AIFs with a leverage that exceeded 300% amounted to € 0.12 billion in 2018. In 2019 and 2020, no AIFs with a leverage that exceeded 300% were identified based on the reporting to the FSMA.

3.2 International comparison

The FSB conducts annual monitoring exercises to assess global trends and risks in non-bank financial intermediation and publishes the results in the *Global Monitoring Report* (GMR) *on Non-Bank Financial Intermediation*[20]. The NBB has been actively participating since 2016 to this international exercise which allows to assess where Belgium stands in the global landscape.

The FSB reports that total financial assets of the participating jurisdictions[21] amounted to roughly $ 404 trillion at the end of 2019. This is a 7% increase since the asset valuation declines of 2018. The global NBFI sector accounts for approximately 50% of this amount, standing at $ 200 trillion. Banks[22] make up roughly 38% of the total financial assets ($ 155 trillion). The report points out that the growth rate in the NBFI sector (9%) was stronger than in the banking sector (5%) during 2019. It also highlights that the NBFI narrow measure amounts to $ 57 trillion, which represents around 14% of the global financial assets and 28% of the global NBFI sector.

Some of these findings are similar to what is observed in Belgium, although some small differences arise. The entire Belgian financial system grew relatively fast between 2018 and 2019 by more than 4% to reach € 2,305 billion. The broad NBFI sector grew faster (5%; up to € 1,210 billion) than the banking sector (4%; to reach € 1,095 billion). This means that the NBFI broad measure also represents roughly 50% of the total financial sector in Belgium. On the contrary, the NBFI narrow measure is relatively smaller in Belgium. Standing at around € 140 billion, it makes up roughly 6% of Belgium's total financial assets and 12% of the Belgian NBFI broad measure.

Although the NBFI narrow measure has remained stable over the last three years in Belgium, the GMR shows that this is not the case worldwide. The narrow measure increased by more than 11% between 2018 and 2019 which is more than the average annual growth between 2013-2018 (7%). In fact, all economic functions experienced faster growth rates in 2019 than their average annual growth rates in 2013-2018. Although this could in part be explained by some catch-up effect after the 2018 markets turmoil, this situation was not observed in Belgium.

The report further points out that, like in Belgium, the main component of the narrow measure is made out of collective investment vehicles with features that make them susceptible to runs (EF1). They account for roughly 73% of the narrow measure worldwide. In 2019, driven by growth in fixed income funds, mixed funds and money market funds, this economic function grew by 13.5% to reach nearly $ 42 trillion. In fact, EF1 grew in 28 out of 29 jurisdictions in 2019 with Belgium being the only outlier. Securitisation-based credit intermediation (EF5) is the second-largest group in the narrow measure, accounting for 8.5%. This function experienced the slowest growth rate (2.5%) in 2019 reaching $ 4.8 trillion worldwide, thereby remaining under the levels seen before the 2008 financial crisis. The third-largest component is intermediation of market activities dependent on short-term funding (EF3), representing 8% of the narrow measure. This function grew by more than 5% and reached a little under $ 5 trillion at the end of 2019. Then comes loan provision that is depend on short-term funding (EF2), which grew by 6% to under $ 4 trillion or nearly 7% of the narrow measure. Finance companies are the main entity type found in this economic function worldwide (80%). Facilitation of credit creation/insurance or guarantees of financial products (EF4) displayed the highest growth rate in 2019 (17%), although it represents the smallest fraction of the narrow measure ($ 0.47 trillion; less than 1%)[23]. Lastly, the GMR states that since the Great Financial Crisis, investment funds

[20] The reports are available at https://www.fsb.org/publications/key-regular-publications/.

[21] There are 29 individual participating jurisdictions and 8 international organizations. For more details, please refer to the 2020 GMR.

[22] More precisely : banks' total financial assets are $ 155 trillion (38%) and central banks' total assets are $ 31 trillion (8%) . The residual is made out of public financial institutions at $ 18 trillion (4%).

[23] The GMR warns that due to difficulties in correctly assessing off-balance sheet exposures, the size of EF4 could be highly understated.

(EF1) have been the main driver of the growth in the narrow measure unlike prior to this event where the main drivers were structured financial vehicles (EF5) and broker-dealers (EF3).

When comparing Belgium to this global landscape, the conclusions from this report's previous editions can be reiterated and remain broadly unchanged. That is to say that the Belgian NBFI narrow measure represents a tiny part of the global NBFI universe (around 0.25% of the global NBFI narrow measure of the FSB monitoring exercise participating jurisdictions) at the end of 2019. Compared to other euro area and non-euro area countries, the FSB data show that the identified levels of NBFI in Belgium are more or less proportionate but somewhat smaller (as measured in % of GDP) than the levels seen in Belgium's neighboring countries (notably France, Germany and the Netherlands). Luxembourg and Ireland remain the two exceptions in Europe. They have a very large NBFI sector due to their key role in the European investment fund market and the large number of special-purpose entities (often with non-domestic sponsors) located within their jurisdictions (Chart 3.6).

Box 3 - Impact of the Covid-19 crisis on the NBFI sector

In order to assess the first impacts of the Covid-19 stress on the NBFI sector, the FSB conducted two case studies in its latest GMR edition where Belgium was able to provide data. They show that during the first quarter of 2020, the size of the global financial assets continued to grow by more than 2% mainly because of the expansion of banks' and central banks' balance sheets (by 8% and 14%, respectively). They also show that, at the same time, the NBFI sector globally shrunk by 4%. The biggest fall in financial assets occurred in *other financial intermediaries* (OFIs) and more specifically in investment funds (-14%) where equity and mixed funds decreased substantially (-20% and -10%, respectively) because of large negative valuation effects rather than large outflows. Conversely, money market funds financial assets grew by 16%[24] during this period. This led EF1 to decrease by nearly 3% at the end of March 2020. At the same time, EF3 total assets increased by 10% and EF5 by 2.5%. The GMR concludes that the Covid-19 crisis caused the largest decline in the NBFI sector in the first quarter of 2020 since the 2008 financial crisis. The share of the NBFI sector reduced from 57% to under 54% (it fell from 49% to 45% between 2007 and 2008).

The situation in Belgium during the first stage of the Covid-19 pandemic has been characterised by similar developments. During the first quarter of 2020, EF1 decreased by more than 11% before steadily growing back during the second and third quarters of 2020, remaining still 2% under its 2019 end-year level. As explained in section 3.1, the financial assets of MMFs tend to evolve inversely compared to those of non-MMF investment funds, at times of stress. As a matter of fact, it was observed that the financial assets of MMFs sharply increased from € 2.3 billion at the end of 2019 to € 9.4 billion in the first quarter of 2020, before decreasing again to € 7.5 billion and € 5 billion over the next two quarters of 2020. Over the same periods, the financial assets of non-equity investment funds dropped to € 113 billion before being back up to € 122 billion and € 124 billion. Regarding the banking side, the financial assets of banks and central banks increased in the first quarter by 6% and 14% respectively. They continued to grow significantly during the second quarter of 2020, by 3% and 31% before stabilising in the third quarter. The situation for EF5 is a little bit different since it decreased by 3% during the first quarter of 2020 and increased between June and September 2020 by 14% compared to its level prior to the pandemic. This was caused by the rise in loans by banks to financial vehicle corporations (FVCs). Consequently, the share of retained securitisation on banks' balance sheets went down from 92% to 89%. Lastly, due to the lack of granular data and to the nature of the entities composing EF2, it cannot be assessed how the EF2 evolved quarter-over-quarter during the first stage of the pandemic.

[24] This figure hides important movements which are described in detail in the second case study of the 2020 GMR. More details on (Belgian) MMFs can be found in Box 4 (section 5.1).

IV. Monitoring framework

This chapter uses the mapping and sizing of the Belgian NBFI and asset management sectors to undertake an analysis — as allowed based on the available data — of the risks *within* these sectors of the Belgian financial system *and in terms of potential spill-overs to other sectors* of the Belgian economy due to *interconnectedness with them*.

The asset management and the NBFI sectors form part of a more market-based financial system where part of the financial intermediation takes place outside the banking sector. This method of financing offers a valuable alternative to bank financing, and thus creates greater diversity in credit sources and investment opportunities for investors. Yet, it may also create systemic risks, particularly if it is involved in bank-like activities — such as liquidity and maturity transformation and/or creation of credit and leverage — and may raise points for attention concerning investor protection.

For the part of the NBFI sector that overlaps with the asset management sector, the main risk is liquidity risk, and particularly the risk of sudden, large-scale redemptions. While most of these funds are open-ended and therefore comprise a variable number of units, the associated liquidity risks are already partly addressed by legislation in force through rules on asset diversification and the introduction of additional liquidity management tools for asset managers.

Apart from the direct risks, the asset management sector and the NBFI sector may also generate (systemic) risks indirectly, notably via their links with other financial institutions and the real economy. Those links, which may take the form of both contractual and non-contractual debts and claims, tend to be limited for households and non-financial corporations (for example, through investment funds). However, in the case of financial institutions they are larger and more complex, particularly as regards links within conglomerates.

4.1 Data and data gaps

Since the publication of the first report in 2017, several FSMA and NBB initiatives have improved the available data and the granularity of the analyses for delineating and assessing developments within the Belgian asset management and NBFI sectors.

Among these initiatives is the introduction by the FSMA of new reporting requirements, which have entered into force on 1 October 2017, for certain public investment funds. These data allowed to calculate new risk indicators for the Belgian investment fund industry, segments of the fund industry, or specific funds which in turn led to a better understanding and assessment of leverage and liquidity risks.[25] Although these new reporting requirements suffered from data quality problems leading to interpretation issues, the FSMA has been continuously working on improving the quality of the data with the fund industry (for more detail, see this report's previous editions). More recently, the early stage of the Covid-19 crisis in 2020 required the start a of a more thorough monitoring of the investment funds sector to ensure good resilience to this sudden shock. A full description of the Covid-19 related monitoring practices is provided in Box 1 of this report (section 2.1).

The NBB, on its side, has been working on improving data and closing data gaps at various levels over the last few years. This has been the case for the *other financial intermediaries* (OFIs) sector at national level, for which improvements were made in identifying the activities and the group structure of the entities populating the sector. This allowed, among others, to better classify entities in the above-mentioned economic function 2 group (see section 3.1) and to distinguish between those entities

[25] For an overview of potential risk indicators, see ESMA's second statistical report on EU Alternative Investment Funds (AIF), as discussed in in Box 2 in section 2.1 of this report.

belonging or not to the consolidation scope of a bank or insurance company. Although some improvements are still needed, a better assessment could already be made by taking entities out of the NBFI sector if no NBFI-like risks were identified within these entities. The NBB has also been actively involved in international initiatives to better capture the global developments in the financial sector and more specifically in the NBFI sector. This has notably been the case at ECB/ESRB level, to improve other countries' access to more granular data in the OFI sector, and at FSB level, where the NBB has become more and more involved in the drafting and analyses of the Global Monitoring Report.

4.2 Risk assessment of the Belgian NBFI sector

Table 4.1 provides an update of some of the risk metrics suggested by the FSB to monitor the degree of credit intermediation as well as the aforementioned bank-like risks for the main types of NBFI entities. The risk metrics are provided for the three economic functions of the Belgian NFBI sector, with a distinction between four different types of investment funds under EF1 (fixed-income funds, mixed funds, other non-equity funds and money market funds). This allows a granular assessment of the risks for different subsegments of the NBFI aggregate. The metrics have been quite stable over time, so that the conclusions from the last report remain broadly unchanged.

The risk metrics calculated for the Belgian investment funds (excluding equity funds) in EF1 confirm that liquidity transformation remains the most important risk for all types of investment funds (the values are close to the maximum). It is essentially a redemption risk, linked to the fact that the liabilities of the funds are mostly composed of units redeemable daily and are not (fully) covered by liquid assets. The second most important risk for these investment funds relates to maturity transformation, as they invest to some extent in long-term assets financed with short-term liabilities. Maturity transformation mostly applies to fixed-income and other funds as it is very limited for mixed and money market funds. Those two risks remain relatively low as long as the sector remains closely monitored and has access to efficient liquidity management tools to mitigate the risk of fire sales.

For the entities falling under EF2 and EF5, the conclusions are the same as in the last update of the report. Indeed, the risk metrics reveal that these entities' positions with respect to liquidity transformation are rather comfortable and that maturities on both sides of the balance sheet are relatively balanced. While the securitisation vehicles under EF5 are associated with high leverage, this risk is mitigated by the absence of significant maturity or liquidity mismatches (in principle, there will never be a need to liquidate the assets in a disorderly way).

4.3 Interconnectedness of the Belgian economy with NBFI entities worldwide

Chart 4.1 provides a first broad — though incomplete — overview of the links between Belgian residents and potential NBFI entities worldwide on the basis of financial accounts data for the third quarter of 2020. These financial accounts are established on the basis of unconsolidated and territorial financial reports (thus showing also "links" that are in fact links within consolidated financial groups, while not capturing links of Belgian entities' foreign subsidiaries and branches) and only capture links with potential NBFI entities residing in euro area countries (financial accounts data do not allow to capture the NBFI subsegment of the OFI sector outside the euro area). The financial accounts data moreover only capture the size of on-balance sheet exposures at the time of the reporting date (leaving out off-balance sheet links and potential future exposures in the case of derivative transactions).

By complementing the aggregates shown in Chart 4.1 with various complementary sources of information, it is possible to distil an informed assessment of the orders of magnitude of the size of Belgian residents' links with NBFI entities and of the nature of the financial transactions involved. The updated analysis for the Belgian banks, insurance companies, households and non-financial corporations in the subsections below reconfirms the main findings of the previous reports as regards this interconnectedness: while links with the OFI sector can be important in some cases, the interconnectedness with what one could call “real NBFI entities” is limited and concentrated in activities that are generally part and parcel of normal business affairs.

4.3.1. Banking sector

Due to its central role in the payment system and the financial intermediation chain, the banking sector has traditionally been characterised by a high degree of interconnectedness with other financial institutions, including banks and non-banks, and in line with the development of the Capital Markets Union in the EU, it can be expected that this interconnectedness with non-bank financial institutions could expand further in the future.

As regards the links on the asset side, the exposure of the Belgian banking system to NBFI entities according to the financial accounts data has declined over the past two years from € 73 billion in 2018 to € 66 billion in 2019 and € 49 billion at the end of the third quarter of 2020. As such, this figure – which also includes intraconglomerate transactions – came closer to the exposure to the so-called “other financial institutions” (OFIs) obtained using the consolidated supervisory data (FINREP). This OFI exposure – which is the best proxy that is available based on consolidated data but has a somewhat larger scope than NBFI entities (e.g. including also insurance companies) – has remained stable in the past years around € 50 billion (or 4% of total assets).

The composition of this FINREP-exposure has somewhat evolved in the past years towards a larger share of loans and a lower share of debt securities. Around 70% of the € 50 billion exposure is constituted of loans and advances (€ 35 billion), representing around 4% of the total loan portfolio of Belgian banks. The majority of these loans to other financial institutions are towards Belgian institutions (€ 25 billion). To a certain extent, these loans are related to securities financing transactions (SFTs), such as repurchase agreements and securities lending with investment funds, (related) insurance companies or CCPs. Besides loans, Belgian banks also owned about € 7 billion of debt securities issued by other financial institutions. These debt securities represent 5% of the total bond portfolio of Belgian banks (compared to 9% in 2018) and the bulk of these exposures are toward foreign counterparties (resp. € 1.1, 0.8, 0.8, 0.7, 0.7 for NL, ES, US, UK and FR OFIs). Some of these securities are securitisations or structured products issued by financial vehicle corporations (FVCs).

On the basis of the financial accounts data, Belgian banks’ loans to the NBFI sector are estimated at € 38 billion and most of these loans are claims on domestic OFIs (€ 23 billion). Since it appears from both the financial accounts data and the FINREP data that the majority of the NBFI or OFI exposure of Belgian banks consists of loans to domestic non-bank financial intermediaries, the central corporate credit register (CCCR) can be consulted to obtain a further detail on this specific portfolio of loans (Chart 4.2). The available data (with again a slightly different scope than the other two data sources) show an exposure that has been close to € 30 billion in total since 2017. A breakdown by NACE code shows that the exposure consists of loans to various types of OFIs — such as leasing, mortgage, consumer credit, private equity and trade and export finance companies.

As regards the liabilities side, the available data in the financial accounts (Chart 4.1) and the consolidated supervisory data (Chart 4.3) showed a sharp fall in repo-related funding and a more moderate decline in overall funding from OFIs in the period up to end 2016. Since then, deposits from domestic and foreign OFIs have been relatively stable at around € 25 and € 65 billion respectively, according to the consolidated data. Still, with € 99 billion at the end of 2020 (of which € 93 billion in deposits), funding from OFIs — including non-NBFI entities, such as insurance companies or other financial intermediaries that should be excluded from the NBFI sector — remains an important source of funding (9% of total liabilities and 11% of total deposits according to FINREP; Chart 4.4). Part of the deposits from other financial institutions reflect banks’ securities financing transactions and can be seen as the counterpart of the securities financing transactions already highlighted on the asset side. Deposits from *related* asset management entities declined from € 6 billion in 2018 to € 4 billion in 2020

4.3.2. Insurance companies and pension funds

At the end of the third quarter of 2020, according to financial accounts data, NBFI exposures amounted to around € 23.7 billion for the pension funds sector — mainly in the form of shares in investment funds, not including equity funds — and € 67.9 billion for the insurance sector.

According to Solvency II prudential data (Chart 4.6), the exposure of insurance companies towards NBFI amounted to € 39.2 billion at the end of 2019 (or 11 % of total assets), a decrease compared with € 43.3 billion at the end of 2018. Out of the € 39.2 billion of NBFI exposures, more than € 14 billion correspond to assets covering class 23 contracts.

Investment funds account for a significant share of the NBFI exposures and amounted to € 22 billion in 2019 (these assets being held as counterpart for unit-linked 23 contracts or other life or non-life technical insurance provisions), while the remaining € 17 billion of NBFI exposures mainly represent holdings of debt securities (corporate bonds, including bonds guaranteed by international institutions) and equity issued by other NBFI entities.

Finally, 2019 data show that assets corresponding to NBFI exposures are increasingly managed outside the financial group to which the insurance company belongs. This trend is however less pronounced for assets covering unit-linked contracts (€ 6.3 billion managed outside group out of € 14 billion) than for other NBFI exposures not related to unit-linked contracts (€ 22.2 billion managed outside group out of € 25.2 billion).

4.3.3. Households

The first report published in 2017 documented the importance of domestic and foreign investment funds in the total financial assets held by Belgian households, in particular the wealthiest among them. Chart 4.7 provides an update on the breakdown of Belgian households' financial assets as at the end of the third quarter of 2020. Chart 4.8 confirms that the total market value of households' participations in investment funds was affected by the financial market turbulence in the last quarter of 2018 as well as in 2020, translating into negative price effects. Nonetheless, these episodes of stock market volatility did not give rise to significant withdrawals. At the end of the third quarter of 2020, the amount of households' holdings in investment funds, reached € 202.9 billion (up from € 197 billion at the end of 2017) or 14.3% of their total financial assets. That amount consists of € 86.9 billion of participations in domestic funds and € 115.9 billion in foreign funds (against € 89.0 billion and € 108.4 billion, respectively, at the end of 2017).

Securitised loans and loans from OFIs still account for a sizeable share of the household sector's debt, with 10.2 % and 3.0%, respectively (Chart 4.7). Yet, most of the loans remain linked to the traditional banking sector. Indeed, virtually all of the securitised mortgage loans are actually retained in the balance sheets of the banks from which they originate. Moreover, OFIs' loans to households are essentially granted by consumer credit institutions.

4.3.4. Non-financial corporations

The links between non-financial corporations (NFCs) and the NBFI sector remain tenuous (Chart 4.9). Participations in domestic and foreign investment funds represented only 1.3% of their total financial assets at the end of third quarter of 2020, whilst equity and intragroup loans to corporations included among the OFIs accounted for 0.9%. These proportions have been stable in recent years. The same holds true for NFCs' liabilities, where securitised loans account for 2.0% of the outstanding amount.

Constituting 1.9% of that same total, loans received from OFIs consist mainly of leasing and factoring, a large part of which originates from subsidiaries of the four major credit institutions (see the report of 2017 for more details). The share of equity investment from OFIs, notably domestic private equity companies, and similar enterprises in NFCs liabilities has remained stable as well (0.7% at the end of the third quarter of 2020).

V. Current regulation and ongoing policy work

This section provides an update of recent developments in the regulation as regards NBFI entities, activities or their interconnectedness with banks and insurance companies and should be read in conjunction with the more comprehensive description of the regulatory framework included in the first report published in 2017. NBFI entities and activities are indeed far from being an unregulated sector, even if their regulation is different from the ones for banks and insurance companies and mainly focuses on investor protection. The update in this section shows moreover that further progress is being made in refining the regulatory and policy framework for resilient non-bank finance.

5.1 Regulation of entities

5.1.1 Asset managers and investment funds

5.1.1.1 Licensing and consumer protection issues

Initiatives at international level

EU money market funds

On 16 December 2020, the European Securities and Markets Authority (ESMA) has updated its Guidelines on stress tests scenarios under Article 28 of the Money Market Fund (MMF) Regulation. The Guidelines establish common reference parameters for the stress test scenarios that MMFs or managers of MMFs should include in their stress scenarios. The updated guidelines take into account the recent experiences during March 2020. While applying the 2019 stress test scenarios in the current market environment generally leads to absolute levels of stress, similar to the levels observed in March, for some parameters the 2019 scenarios have been exceeded by the extreme market movements observed during the COVID-19 crisis. This is notably the case of the redemption scenario, as some funds exceeded the 25% redemption rate for professional investors specified in the guidelines (see also Box 4). Therefore, the risk parameters have been updated accordingly.

On 4 December 2020, ESMA has also updated the reporting of MMFs to competent authorities under Article 37 of the MMF Regulation after feedback from market participants. Managers of MMFs have started to transmit the reporting to competent authorities during 2020.

Box 4: Money Market Funds during the March 2020 market turmoil

On 20 November 2020, IOSCO published a thematic note analysing the events that occurred in the MMF industry during the March 2020 market turmoil. The note provides a factual description of how the market turmoil impacted the functioning of the short-term funding markets and led to significant strains in the MMF sector, which varied considerably by MMF type, structure and currency. This box summarises the key findings of the note.

MMFs bring together supply and demand in the short-term money market, serving as a source of short-term financing for financial institutions, corporates and governments on the one hand, and as a cash management tool, providing liquidity, diversification and limited volatility for MMF investors on the other hand.

The COVID-19-related decline in business activity and heightened volatility contributed to a demand for cash and safe assets (i.e. flight-to-safety behaviour). This may have led to some investors redeeming some of their MMF holdings, and inflows for other MMFs. While all MMFs generally perform a similar function in the short-term money market, there is some heterogeneity within the MMF industry. Depending on their characteristics, some MMFs were seen as safe investments during the market turmoil and recorded very large inflows, while other MMFs have raised liquidity risk concerns and recorded substantial outflows.

In both the US and the EU, a move towards public debt MMFs investing in US government securities was observed, in particular government MMFs in the US and USD denominated public debt Constant Net Asset Value (CNAV) MMFs in the EU[26].

The most significant outflows occurred for USD denominated non-public debt MMFs in the US and the EU. In the US, prime MMFs[27] recorded outflows representing 11% of their assets. In the EU, USD denominated non-public debt Low Volatility Net Asset Value (LVNAV) MMFs recorded outflows representing 25% of their total net asset value. However, there was considerable heterogeneity across funds. There is suggestive evidence that these outflows from USD denominated LVNAV MMFs and inflows into USD denominated public debt CNAV MMFs are, to some extent, re-allocations of MMF investors driven by flight-to-safety behaviour. In addition, some non-financial corporates may have withdrawn their holdings because of business uncertainty or immediate cash needs, as revenue sources dried up. For financial corporates redemptions could also have been driven by the need to meet increased margin calls and collateral management.

For EUR denominated non-public debt MMFs in the EU, in particular VNAV MMFs, the situation varied across funds. Both inflows and outflows were recorded, but overall net outflows seemed to dominate.

These events concurred with a period in which the underlying market, notably the commercial paper market, saw a reduction in liquidity. As a consequence, some MMFs attempting to meet redemptions requests through the sale of some of their holdings were confronted with difficulties.

Central banks and national authorities intervened in the short-term funding market in some jurisdictions, which supported the functioning of the market and had a positive effect on MMFs. In the US, the announcement of the Federal Reserve liquidity facilities[28] restored market confidence, while the US SEC's temporary relief permitting MMFs to transact with affiliated parties also directly benefitted prime MMFs. These interventions, as well as other Federal Reserve actions in mid-March, helped stabilise outflows from prime MMFs. While European USD denominated LVNAV MMF's were excluded from the Federal Reserve program, there might have been an indirect benefit due to the positive impact on funding markets. As volatility decreased and market tensions lessened, outflows were turned into inflows also for these MMFs as of April 2020. The ECB reminder that liquidity buffers might be used by banks may have had a positive effect on the market for money market instruments, as banks began to provide some liquidity in their own paper. Other ECB interventions might also have contributed to restoring market confidence and have had a smaller indirect effect on MMFs. This alleviated pressures also for EUR denominated non-public debt MMFs.

While some MMFs faced issues during the March market turmoil, they all honoured redemptions without applying fees or gates. No MMF suspended redemptions. In Europe, the threshold of 20bps for deviations between stable and floating NAVs of LVNAV MMFs was not breached, and no LVNAV MMF converted to a VNAV MMF.

[26] The large majority of total assets under management of public debt CNAV MMFs in Ireland and Luxembourg is USD denominated.

[27] US prime MMFs are non-public debt MMFs. Institutional prime MMF are offered to institutional investors and are required to operate as floating NAV MMFs. Prime retail MMFs are offered to retail investors and are permitted to operate at a stable NAV per share.

[28] Notably the Money Market Mutual Fund Liquidity Facility ("MMLF") and Commercial Paper Funding Facility ("CPFF").

The IOSCO thematic note suggests further analysis to strengthen the money markets' ecosystem and MMFs' regulatory framework.

The note focuses on developments in the main MMF jurisdictions and does not provide a description of the how COVID-19 related market events impacted Belgian MMFs. The size of the Belgian MMF sector is relatively small when compared to the main European MMF jurisdictions[29]. It is also relatively limited part of the Belgian investment fund industry[30]. All Belgian MMFs are VNAV MMFs, of which the majority is EUR denominated. The most important investors in Belgian MMFs are fund-of-fund structures managed by the same manager as the MMFs and investing in MMFs as an alternative to cash investments. As volatility increased in March 2020, these investors did not redeem their shares in MMFs, but instead subscribed to a substantial amount of new shares, driven by a flight-to-safety behaviour embedded in the investment strategy of these investors. As of end-March 2020, investors gradually redeemed their holdings in Belgian MMFs, a trend which has continued throughout the remainder of the year. These redemptions were generally predictable and did not cause any concerns. These observations for Belgian MMFs are aligned with one of the key takeaways of the IOSCO thematic note, namely that MMFs behaved differently and faced different contexts and issues as a result of their characteristics such as investor profiles, portfolio holdings and/or regulatory requirements.

Guidance on performance fees

On 3 April 2020 ESMA published its **final guidance on performance fees in investment funds**[31]. ESMA defines a comprehensive set of guidelines for fund managers when designing performance fee models for the funds they manage. The guidelines cover, inter alia, the following areas:

- the performance fee calculation method;
- the consistency between the performance fee model and the fund's investment objectives, policy and strategy;
- the disclosure to investors.

These guidelines aim at harmonising the way fund managers charge performance fees to retail investors, as well as the circumstances in which performance fees can be paid. The guidelines are applicable to both UCITS and certain types of AIFs, in order to ensure a level playing field and a consistent level of protection to retail investors.

5.1.1.2 Main risks

The key structural vulnerabilities identified by international bodies in the area of the asset management industry are liquidity risk and leverage. The risk metrics calculated for Belgian investment funds also highlight liquidity risk as the most important risk, even though the report published in 2017 mentioned several elements to nuance its magnitude. The risk metrics also suggest that Belgian investment funds have no financial leverage. However, the leverage ratios calculated can understate the true riskiness as synthetic exposures are not well reflected in the balance sheet statistics used.

[29] At the end of 2019, the size of MMF sector amounted to 563 billion euro in Ireland, 363 billion euro in Luxembourg and 314 billion euro in France, according to EFAMA statistics, while the size of the Belgian MMF sector amounted to 2 billion euro according to data reported to the FSMA.

[30] At the end of 2019, MMF net assets represented around 1.4% of the total net assets of the Belgian publicly offered open-ended investment funds.

[31] ESMA Guidelines on performance fees in UCITS and certain types of AIFs (ESMA34-39-968).

Initiatives at international level

Monitoring the use of liquidity management tools

From mid-March 2020 and soon after the first suspensions occurred in Europe, ESMA monitored the use of liquidity management tools in the EU. ESMA and the National Competent Authorities (NCAs) scheduled meetings with at least a weekly frequency to exchange information on the developments across the EU/EEA. NCAs were already in regular contact with market participants in their member states to discuss the developments. A number of NCAs, including the FSMA, even requested daily or weekly data from their supervised entities (see Box 1).

To facilitate the ongoing exchange of information and get a better overview, ESMA and NCAs mapped the activation of liquidity management tools across the EU on an ongoing basis. The information shared within ESMA included, for UCITS, AIFs and MMFs, the number and net asset value of the funds using liquidity management tools, the liquidity management tools used and the cross-border impact.

Supervision of UCITS' managers liquidity risk management

In partnership with NCAs, ESMA conducted during 2020 a Common Supervisory Action (CSA) on the supervision of UCITS' managers liquidity risk management across the EU.

The compliance with UCITS liquidity risk management rules contributes to ensuring financial stability, investor protection and the orderly functioning of financial markets. In support of this aim, national competent authorities assessed simultaneously whether market participants in their jurisdictions adhere to the rules in their day-to-day business. This has been done on the basis of a common methodology developed together with ESMA. The CSA assessment framework, including scope, methodology, supervisory expectations and timeline, resulted from a joint effort to carry out comprehensive supervisory action in a convergent manner.

The first stage of the CSA involved NCAs requesting quantitative data from a large majority of the UCITS managers based in their respective Member States, to get an overview of the supervisory risks faced. In the second stage, NCAs focused on a sample of UCITS managers and UCITS to carry out more in-depth supervisory analyses. Throughout 2020, national competent authorities shared knowledge and experiences through ESMA to ensure supervisory convergence in the way they supervise liquidity risk management and ultimately enhance the protection of investors across the EU.

Assessment of liquidity risk for corporate debt and real estate funds

In the wake of the initial impact of the COVID-19 outbreak on markets, the EU investment fund industry faced a significant deterioration in liquidity in some segments of the fixed income markets combined with large-scale investment outflows from investors. Redemption demands in a deteriorating liquidity environment were particularly challenging for funds that were invested in less liquid assets, such as corporate debt and real estate assets. On 6 May 2020, the European Systemic Risk Board (ESRB) published a recommendation to address liquidity risk in investment funds. The ESRB recommendation requested that ESMA coordinates with NCAs to undertake a focused piece of supervisory exercise with investment funds that have significant exposures to corporate debt and real estate assets to assess the preparedness to potential future adverse shocks, including any potential resumption of significant redemptions and/or an increase in valuation uncertainty. ESMA reported on its analysis and on the conclusions reached regarding the preparedness of the relevant investment funds.

The funds under review overall managed to maintain adequately their activities when facing redemption pressures and/or episodes of valuation uncertainty. Only a limited number of the analysed funds suspended subscriptions and redemptions while the vast majority was able to meet redemptions requests and maintain their portfolio structure. Nevertheless, fund managers should enhance their preparedness to potential future adverse shocks that could lead to a deterioration in financial market liquidity and valuation uncertainty. ESMA has identified five priority areas for action that would enhance the preparedness of funds that have significant exposures to corporate debt and real estate assets. The priority areas identified are ongoing supervision of the alignment of the funds' investment strategy, liquidity profile and redemption policy; ongoing supervision of liquidity risk assessment; fund liquidity profile reporting; increase of the availability and use of liquidity management tools; and supervision of valuation processes in a context of valuation uncertainty. A continued oversight by NCAs is also of utmost importance. In this respect, it is also important to continue promoting supervisory convergence at EU level.

Two-step framework to assess leverage in investment funds

On 13 December 2019, IOSCO published its Recommendations for a Framework Assessing Leverage in Investment Funds. The framework is developed in response to one of the recommendations of the Financial Stability Board (FSB) intended to address the residual risks associated with leverage within all types of funds that use leverage[32]. Leverage was identified by the FSB as a key structural vulnerability associated with asset management activities.

IOSCO recommends that regulators use a two-step framework to facilitate a more meaningful monitoring of leverage in funds for financial stability purposes in a consistent manner across jurisdictions.

Step 1 of the framework acts as a filtering process. The goal is to efficiently identify those funds that are more likely to pose risks to the financial system. IOSCO recommends using at least one notional exposure metric, which includes exposures achieved through financial and synthetic leverage, in Step 1 of the framework. Information on directionality of positions should be captured through the collection of data broken down by asset class, and long and short exposures. This should enable regulators to identify a subset of investment funds that can be taken forward for further risk-based analysis.

Step 2 of the framework is a risk-based analysis of the subset identified in Step 1, using relevant and risk-based adjusted metrics that depend on the characteristics of a fund. IOSCO does not prescribe a particular set of metrics or other analytical tools to be used, but rather recommends regulators to determine their own approach to defining appropriate risk-based measures to further analyse the funds identified in Step 1. IOSCO does provide regulators with a list and description of leverage-related risk measures that are common across jurisdictions and which regulators may consider using.

Global report on leverage in investment funds

In response to another recommendation of the FSB intended to address residual risks associated with leverage within funds, IOSCO will collect and aggregate data on leverage[33]. IOSCO therefore recommends that jurisdictions that do not already make certain leverage-related data publicly available do so, or provide this information to IOSCO for publication on a yearly basis. IOSCO recommends the publication or sharing of exposures, based on the notional exposure metrics developed for Step 1 of the two-step framework, by asset class, including long and short exposures, for funds assessed under Step 1. This will allow IOSCO and relevant stakeholders to monitor trends in

[32] Recommendation 10 of the Policy Recommendations to Address Structural Vulnerabilities from Asset Management Activities, 12 January 2017.

[33] Recommendation 12 of the Policy Recommendations to Address Structural Vulnerabilities from Asset Management Activities, 12 January 2017.

leverage on a global basis. IOSCO's first report on leverage is scheduled to be published in 2021. The report will develop over time and be expanded to include more jurisdictions.

Assessing leverage risks of AIFs and imposing leverage limits

ESMA published its Final Report on Guidelines on Article 25 of the AIFMD on 17 December 2020[34]. These guidelines were developed in response to one of the recommendations of the European Systemic Risk Board (ESRB) intended to address leverage risks in investment funds[35].

Article 25 (1) of the AIFMD provides that Member States shall "ensure that the competent authorities of the home Member State of the AIFM use the information to be gathered under Article 24 for the purposes of identifying the extent to which the use of leverage contributes to the build-up of systemic risk in the financial system, risks of disorderly markets or risks to the long-term growth of the economy".

The guidelines aim to ensure that National Competent Authorities (NCAs) adopt a consistent approach when assessing whether the condition for imposing leverage-related measures are met. They provide guidance on the framework to assess the extent to which the use of leverage within the AIF sector contributes to the build-up of systemic risk in the financial system. The guidelines also provide guidance on the design, calibration and implementation of leverage limits.

The guidelines follow the two-step approach introduced by IOSCO and translate this approach into the European framework. They provide NCAs with a set of indicators to be considered when performing their risk assessment and a set of principles that NCAs should take into account when calibrating and imposing leverage limits.

Initiatives at national level

The Belgian government has taken swift initiatives to ensure normal operation of Belgian public funds during the COVID-19 crisis through the Royal Decrees No. 4 and of 22 April 2020.

The **Royal Decree No. 4 introduced an optional regime for the organisation of annual, special or extraordinary general meetings** (GMs). The scheme offered the possibility either to organise the GM at a distance or to postpone the GM. The possibility to organise the GM at a distance could be used for all meetings that were convened or held between 1 March and 30 June 2020. The postponement to a date later than that provided for in the constitutive documents could be decided by the board of directors until 30 June 2020.

The Royal Decree of 22 April 2020 on special measures to protect public undertakings for collective investment with a variable number of units from the consequences of the COVID-19 epidemic introduced two temporary regimes.

The **Royal Decree of 22 April 2020 introduced the possibility to change the frequency of the calculation of the net asset value (NAV)** when the unavailability of staff due to a contamination by COVID-19 no longer allowed the normal calculation of the NAV of the public fund. Until 31 July 2020, the frequency of NAV calculation could be reduced to twice a month. Exceptionally, this decision did not require any amendment to the prospectus, Key Investor Information Document or constitutive documents. Only the publication of a press notice to inform investors was required.

The Royal Decree of 15 October 2018 allowed public undertakings for collective investment with a variable number of units to foresee and use a number of liquidity management tools: swing pricing,

[34] Final Report on Guidelines on Article 25 of Directive 2011/61/EU (ESMA34-32-552).

[35] Recommendation E of the Recommendation of the European Systemic Risk Board of 7 December 2017 on liquidity and leverage risks in investment funds (ESRB/2017/6).

anti-dilution levy and redemption gates. Accordingly, the fund's prospectus has to provide for the availability of one or more liquidity management tools. Exceptionally and until 31 July 2020, **the Royal Decree of 22 April 2020 enabled the use of the liquidity management tools without any prior amendment to the prospectus**. A press notice published at the latest at the time of their first use, enabled the use of swing pricing or anti-dilution levy. A policy specifying the conditions for the application of swing pricing and anti-dilution levy mechanisms was still required, as well as the identification of conflicts of interest related to the use of these mechanisms. The use of redemption gates required an ex-post disclosure vis-à-vis both supervisory authorities and investors.

The FSMA has strongly recommended that asset management companies and investment companies make these liquidity management tools available to all Belgian public open-ended funds. The Royal Decree of 15 October 2018 has allowed public open-ended funds to set up a number of liquidity management tools: swing pricing, anti-dilution levy and redemption gates. Together with international bodies such as the ESRB, ESMA and IOSCO, the FSMA stressed the importance of the timely availability and use of the liquidity management tools, particularly in times of market stress. Indeed, the use of these tools helps to address issues related to the existence of first-mover advantages. In case of redemptions, the use of swing pricing or an anti-dilution levy implies that the costs of liquidating assets in order to repay redeeming investors is mostly borne by the redeeming investors and not those who remain in the fund. Redemption gates allow to spread large redemption requests over time. The timely use of liquidity management tools could therefore reduce the risk of forced sales of less liquid assets in times of stress.

Nevertheless, the FSMA has observed that liquidity management tools were made available only for a small minority of Belgian public open-ended since 2018. This is why, on the one hand, the Royal Decree of 22 April 2020 enabled the use of the liquidity management tools without any prior amendment to the prospectus and, on the other hand, the FSMA strongly recommended making at least one of the above mentioned liquidity management tools available to most Belgian public funds. At the end of 2020, one or more liquidity management tools was available to the vast majority of the Belgian public funds for which the introduction was recommended.

5.1.2 Investment firms

As investment firms can also play a significant role in activities related to the NBFI and asset management sector, the European Commission's legislative package[36] (estimated implementation date June 2021) for a more effective prudential and supervisory framework for investment firms — as one of the priorities to strengthen capital markets and build a capital markets union (CMU) — will have a bearing on the future regulatory framework for asset management and NBFI entities. This new regime is calibrated to the size and nature of investment firms, in order to boost competition and improve the management of risks.

Up until now, investment firms have been subject to EU prudential rules alongside credit institutions. The prudential framework for investment firms is set out in the CRR/CRD IV and works in conjunction with MiFID (and as of January 2018 with MiFID II / MiFIR) which sets out the conditions for authorisation and organisational and business conduct requirements under which investment services can be provided to investors as well as other requirements governing the orderly functioning of financial markets. However, credit institutions and investment firms are two qualitatively different institutions with different primary business models but with some overlap in the services they can provide.

[36] Final version of the legislative package voted by the European Parliament on the 9th of October 2019 and published in the Official Journal in December 2019.

Therefore, under the revised framework for investment firms, only systemic investment firms would still be subject to the CRR/CRD IV framework[37], including any future amendments, given these firms typically incur and underwrite risks on a significant scale throughout the single market therefore constituting a greater risk to financial stability given their size and interconnectedness.

For the other investment firms, the new framework will address the problems of the existing framework (regulatory complexity, risk-insensitive and fragmented regulatory landscape) while facilitating the take-up and pursuit of business by investment firms where possible. Specifically, it sets out a prudential framework that is better adapted to their business models. It consists of more appropriate and risk-sensitive requirements for investment firms, better targeting the risks they actually pose and incur across different types of business models in order to protect the stability of the EU's financial markets.

The minimum capital for investment firms would be set either according to a newly designed 'K-factor approach' which specifically targets the services and business practices that are most likely to generate risks to the firm, to its customers and to the market. They set capital requirements according to the volume of each activity. The initial capital required for their authorisation or a quarter of their fixed costs for the previous year, would act as a floor to their minimum capital requirement.

The very small and non-interconnected firms would be subject to an even less complex regime in terms of capital, governance and reporting requirements.

5.1.3 Loan provision that is dependent on short-term funding

In August 2020, the FSMA published an update of its paper to provide **insight into the Belgian financial return-based crowdfunding landscape**. The update analyses the crowdfunding campaigns launched during the period from July 2018 to June 2020[38].

During that period, 234 crowdfunding campaigns requiring the publication of an information note were launched. At least 140 of those campaigns have been successfully funded, raising a total of € 69 million. For comparison, the projects launched during the period 2012-2017 had raised a total of € 40 million. The Belgian crowd funding market has continued to grow, both in terms of number of projects and amounts raised. The amount raised in 2019 (€ 41.5 million) is twice the amount raised in 2017 (€ 19.6 million). Nevertheless, in the first six months of 2020, the number of information notes received had decreased. This could be a consequence of the coronavirus crisis. It remains an open question whether this crisis will have a lasting effect on the number of new campaigns. **Compared to deposits and loans this limited amount shows that crowdfunding is still a marginal form of investment and source of funding.**

The larger part of the campaigns were debt campaigns (70% of the number of campaigns and 85% of the amounts). Debt campaigns offered an average annual interest rate of 4.17%. The average length of the campaigns was 56 days. On some platforms, campaigns were completed in minutes or even seconds. On other platforms, campaigns could last several months.

[37] By formally reclassifying them into credit institutions based on the amended article 4(1)(1)(b) of CRR

[38] See https://www.fsma.be/en/news/interest-crowdfunding-rise for more information on the methodology

5.1.4 Non-retained securitisation

The Securitisation Regulation[39], adopted in December 2017, entered into force on 1 January 2019.[40] The regulation replaces all sector/entity specific regulation and provides for requirements related to risk retention, transparency, due diligence and reporting. It also implements the criteria for simple, transparent and standardised (STS) securitisations (equivalent to simple, transparent, comparable (STC) securitisations as defined by Basel).

The European Commission published the capital markets recovery package (CMPR) on the 24th of July 2020, which forms an integral part of her COVID-19 recovery strategy. The package includes changes to the securitisation framework as defined in the securitisation regulation[41] and capital requirements regulation[42].

The proposed changes to the securitisation Regulation aim to extend the current EU rules for simple, transparent, and standardised (STS) securitisations to synthetic securitisations. This is a deviation from the Basel framework were only traditional securitisations can qualify as simple, transparent and comparable securitisations. A synthetic securitisation is a securitisation whereby the risk on a group of loans is transferred to investors via a credit protection contract. By transferring the risk, banks can free up additional capital for lending to the real economy.

The proposed changes to the capital requirements regulation include : i) a preferential risk weight for senior positions in STS synthetic securitisations held by the originator institution ii) a regulatory treatment specific for securitisations of non-performing exposures which aims to eliminate the regulatory obstacles in the current regulatory framework and to better take into account the characteristics of non-performing exposures. The latter adjustments should enable banks to remove non-performing exposures, which might arise in the context of the COVID-19 pandemic, from their balance sheet without prejudice to compliance with high prudential standards.

On 15 December 2020, the final CMRP proposals, including the amendments to the securitisation regulation and the capital requirements regulation, were approved by the ambassadors to the EU and published by the EU Council[43].

5.2 Regulation to mitigate spill-over risks (interconnectedness)

Risks originating in NBFI entities can spill over to banks, insurance companies, pension funds, households and non-financial companies through the financial interconnectedness between them. These linkages are for example created when non-bank financial entities are directly owned by banks or benefit from explicit (contractual) or implicit (non-contractual) bank support. Such amplification of risks can have consequences for financial stability.

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[39] Regulation (EU) 2017/2402 of 12 December 2017 laying down a general framework for securitisation and creating a specific framework for simple, transparent and standardised securitisation, and amending Directives 2009/65/EC, 2009/138/EC and 2011/61/EU and Regulations (EC) No 1060/2009 and (EU) No 648/2012

[40] Regulation (Eu) 2017/2402 of 12 December 2017 laying down a general framework for securitisation and creating a specific framework for simple, transparent and standardised securitisation, and amending Directives 2009/65/EC, 2009/138/EC and 2011/61/EU and Regulations (EC) No 1060/2009 and (EU) No 648/2012.

[41] Regulation (EU) 2017/2402 of the European Parliament and of the Council of 12 December 2017 laying down a general framework for securitisation and creating a specific framework for simple, transparent and standardised securitisation, and amending Directives 2009/65/EC, 2009/138/EC and 2011/61/EU and Regulations (EC) No 1060/2009 and (EU) No 648/2012.

[42] Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012.

[43] See: https://www.consilium.europa.eu/en/press/press-releases/2020/12/16/capital-markets-recovery-package-council-confirms-targeted-amendments-to-eu-capital-market-rules/

5.2.1. Step-in risk

As regards the interconnectedness of banks, **the final guidelines of the Basel Committee on Banking Supervision (BCBS) on the identification and management of step-in risk were published on 25 October 2017**.[44] As mentioned in the 2017 report (p. 32), step-in risk is the risk that a bank decides, mainly to avoid reputational risk, to provide financial support to an unconsolidated entity that is facing stress, in the absence of, or in excess of, any contractual obligations to provide such support.

Through these guidelines, the BCBS aims to mitigate potential spillover effects from the NBFI system to banks. This work was part of the G20 initiative to strengthen the oversight and regulation of the NBFI system to mitigate systemic risks, in particular risks arising due to banks' interactions with NBFI entities.

This is the reason why, from 28 December 2020, the new paragraph 8 of art. 18 of the CRR[45] as introduced by Regulation (EU) 2019/876[46] (CRR II) will enable competent authorities to require full or proportional consolidation of an NBFI subsidiary, other than an insurance undertaking, where there is a substantial risk that the bank could decide to provide financial support to this undertaking in stressed conditions, in the absence of, or in excess of any contractual obligations to provide such support.

EBA will in this context publish the updated version of the Regulatory Technical Standard on the methods for prudential consolidation that will include several indicators that should be used by institutions in order to identify which undertakings can be prone to step-in risk.

Following the Basel guidelines, banks are expected to put into place policies and procedures for identifying and managing step-in-risk as part of their risk management framework. On the basis of a specific reporting, supervisory authorities will then assess the adequacy of banks' self-assessments and mitigating measures taken in this regard.

5.2.2. Intragroup transactions and risk concentration reporting templates for financial conglomerates

The Joint Committee of the European Supervisory Authorities (EIOPA, EBA, ESMA) has finalised implementing technical standards (ITS) aiming to fully align the reporting under the Financial Conglomerates Directive (FICOD) in order to enhance supervisory overview regarding group specific risks, in particular contagion risk. The standards should be published shortly.

Under these standards, regulated entities and mixed financial holding companies will be required to report significant intragroup transactions and significant risk concentration in a consistent manner. This will help coordinators and other relevant authorities to identify relevant issues and exchange information more efficiently. A transition period preceding the entry in force of the ITS allows the financial conglomerates to adjust their data management and reporting tools to the new requirements.

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[44] BCBS Guidelines - Identification and management of step-in risk: https://www.bis.org/bcbs/publ/d423.htm

[45] Regulation (EU) N°575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) N°648/2012 and Regulation (EU) 2019/876 of the European Parliament and of the Council of 20 May 2019 amending Regulation (EU) N° 575/2013 as regards the leverage ratio, the net stable funding ratio, requirements for own funds and eligible liabilities, counterparty credit risk, market risk, exposures to central counterparties, exposures to collective investment undertakings, large exposures, reporting and disclosure requirements, and Regulation (EU) N° 648/2012.

[46] Regulation (EU) 2019/876 of the European Parliament and of the Council of 20 May 2019 amending Regulation (EU) No 575/2013 as regards the leverage ratio, the net stable funding ratio, requirements for own funds and eligible liabilities, counterparty credit risk, market risk, exposures to central counterparties, exposures to collective investment undertakings, large exposures, reporting and disclosure requirements, and Regulation (EU) No 648/2012.

VI. Key findings, policy conclusions and recommendations

This monitoring report on asset management and non-bank financial intermediation in Belgium constitutes the third follow-up of the publication, in 2017, of the first NBB-FSMA report on asset management and NBFI. The main goal of this joint FSMA-NBB monitoring report is to present the annual update of the key statistics used in the 2017 report and of the related assessments and conclusions regarding potential systemic risks.

As market-based financing provides a valuable alternative to bank funding and helps to support real economic activity, it is a welcome diversification of credit supply from the banking system, and provides healthy competition for banks. The shift towards more market-based financing also provides investors with valuable investment opportunities. This is also the reason why the European Commission continues to foster a further development of market-based financing as part of its action plan on the Capital Markets Union (CMU). Yet, if market-based financing is involved in bank-like activities such as maturity or liquidity transformation and facilitating or creating leverage, it may nevertheless contribute to risks to financial stability and create additional risks for investors, directly or through its interconnectedness with other sectors.

The Covid-crisis and the related “dash for cash” in financial markets in March 2020 showed in this connection a number of vulnerabilities in specific subsegments of the money market fund sector and some open-ended investments funds investing in less liquid assets, such as certain segments of the corporate bond market and real estate. While interventions by central banks and national authorities contained the spill-overs of these developments, they also triggered a number of regulatory and supervisory actions to review and address the revealed vulnerabilities. Following the market turmoil and concerns related to the potential materialisation of liquidity risks, Belgian money market funds and other Belgian public open-ended investment funds were monitored very closely as of March 2020. The monitoring allowed the FSMA to track net inflows or outflows into certain segments and specific funds. It showed that the Belgian public open-ended investment fund industry was overall strongly resilient to the market developments in March. In conclusion, the market developments can be considered as a “live stress test” for the Belgian investment fund industry, as it replicated some of the market dynamics and challenging liquidity conditions that regulators have worried about the last years. While some Belgian public open-ended investment funds saw large redemptions during this period, all redemption requests could be managed. None of these funds had to suspend redemptions.

The size of the asset management sector in Belgium depends on the yardstick used to measure it and on the mark-to-market changes in the value of the assets under management in line with global capital market developments. Net assets of Belgian investment funds, at the core of the asset management sector, rose to € 191 billion at the end of 2020 (up from € 185 billion at the end of 2019), while assets under management of Belgian asset managers climbed to € 269 billion. Assets generating fee and commission income for Belgian banks, which include also foreign investment funds distributed to Belgian residents, reached € 621 billion at the end of 2020. Most of these assets are part of authorised or registered investment funds, life-insurance policies, or Belgian institutions for occupational pensions, while part of them are simply clients’ portfolios managed on a discretionary basis by the banks themselves.

The Belgian NBFI sector that undertakes "*credit intermediation involving entities and activities outside the regular banking system, and therefore lacking a formal safety net*" has been very stable in recent years : under the FSB framework, its size amounted to € 138 billion at the end of September 2020, compared to € 137 billion at the end of 2019, € 139 at the end of 2018 and € 148 billion at the end of

2017. Under the narrower EBA framework[47], it amounted to € 14 billion at the end of September 2020 (versus € 21.5 billion at the end of 2018). In both aggregates, the main component of the total is accounted for by the eligible Belgian non-equity investment funds (close to 95 % under the FSB framework of the NBFI sector: € 129 billion out of € 138 billion).

Aggregate numbers on the size of asset management and NBFI sectors should not be used as a *prima facie* measure of underlying risks (or changes therein). They can only serve as a starting point for delving deeper in the — very heterogeneous — nature of the underlying assets and liabilities and their links with other sectors of the economy. In that perspective, and following an assessment of the drivers of recent changes in the key statistics for the Belgian asset management and NBFI sectors, it appears that the qualitative findings and conclusions from the 2017 report on the systemic risks associated with asset management and NBFI still remain broadly unchanged. The dynamic development of some of the key indicators underscores nevertheless again the need for maintaining a close monitoring of both sectors going forward, including for the interconnectedness with other financial and non-financial sectors in Belgium.

6.1 General policy recommendations: follow-up

The importance of the asset management and NBFI sectors, as well as the interconnectedness of the NBFI sector with the banking sector and other sectors of the economy demand a continuation of the current monitoring efforts of both sectors by the FSMA and the NBB.

Since 2017, the reporting requirements of the asset management sector, the largest part of the Belgian NBFI sector, have continually been improving, in term of scope, quality and frequency. The data availability and consistency have significantly increased, as has the data analysis. This allowed for a closer monitoring of the asset management sector, which in turn enabled to strengthen its risk monitoring, in line with the first recommendation from the 2017 report. In line and ahead of European developments, the data collection and data analysis of Belgian public funds have been transformed.

Both the FSMA and the NBB have also continued their efforts to contribute to the work done by international/supranational institutions involved in the monitoring, risk assessment and policy implementation for NBFI (including, but not limited to, the FSB, IOSCO, ESRB, EBA and ESMA). The European and international efforts to address remaining vulnerabilities in the global NBFI-sector are also supported through the work in these international fora.

6.2 Specific policy recommendations: follow-up

Mismatches between the liquidity of open-ended investment funds' assets and their redemption profiles have been identified by the FSB, IOSCO and the ESRB as a potential risk to financial stability. Furthermore, if liquidity mismatches in investment funds are not managed properly, they may adversely impact investors in those funds. The international bodies therefore propagate a wider availability of so-called liquidity management tools, which allow illiquidity costs to be passed on to those investors that cause them and/or to partially restrict the execution of redemption requests under certain conditions.

During the Covid-19 crisis, the Royal Decree of 22 April 2020 exceptionally enabled Belgian public funds to use liquidity management tools (swing pricing, anti-dilution levies and redemption gates) without any prior amendment to the prospectus. Meanwhile, the FSMA strongly recommended

[47] Under the EBA framework, only MMFs and some AIFs are considered to fall within the scope of the definition of NBFI. The FSB framework encompasses not only MMFs and highly leveraged investment funds but all investment funds, with the exception of equity funds.

making at least one of the above-mentioned liquidity management tools available to most Belgian public funds.

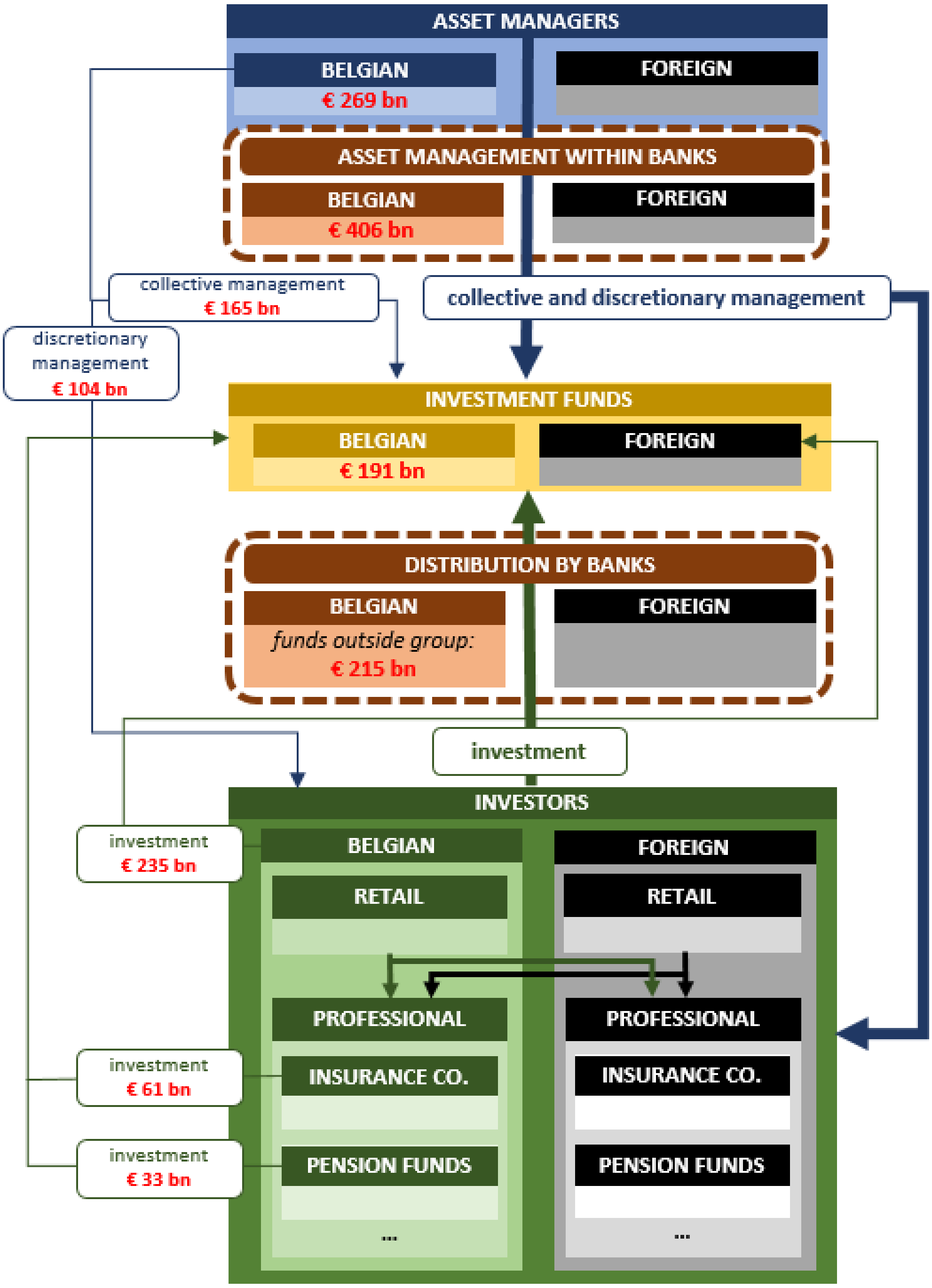
In line with the specific recommendation of the first NBB-FSMA report on asset management and NBFI, one or more liquidity management tools were available, at the end of 2020, to the vast majority of the Belgian public funds for which the introduction was recommended.

The 2017 report on asset management and NBFI also identified the need to mitigate potential risks related to the interconnectedness between the NBFI sector and asset management vehicles and other sectors of the Belgian economy (banks, insurance companies and pension funds, households and non-financial corporations). The importance of conglomerate supervisors to focus on such interlinkages and on regulatory arbitrage opportunities and the need to ensure that off-balance sheet activities are scoped into the perimeter of financial group supervision was also flagged by the International Monetary Fund (IMF) in 2018 when it published its Financial Sector Assessment (FSAP) report assessing the Belgian financial sector. The NBB has in that regard continued to closely monitor and analyse both the contractual and non-contractual links between NBFIs and asset management vehicles on the one side and banks and insurance companies on the other side, especially within financial groups. These efforts have been complemented by further developments in the regulatory field regarding bank supervisors' capabilities to deal with so-called "step-in risks" where supervised entities decide to provide financial support to an unconsolidated entity that is facing stress, in the absence of, or in excess of, any contractual obligations to provide such support in order to avoid reputational risk.

Statistical annex

II. Overview of the Belgian asset management sector

***Chart 2.1: Schematic overview of the Belgian asset management sector** (€ billion, end 2020[1])*



Sources: FSMA, NBB.

<u>**Notes**</u>:

[1] Data for foreign investment funds held by Belgian residents and for investments of Belgian insurance companies in investment funds refer to end-September 2020.

***Table 2.1: Gross statistics of asset management activities relevant for Belgium** (€ billion)*

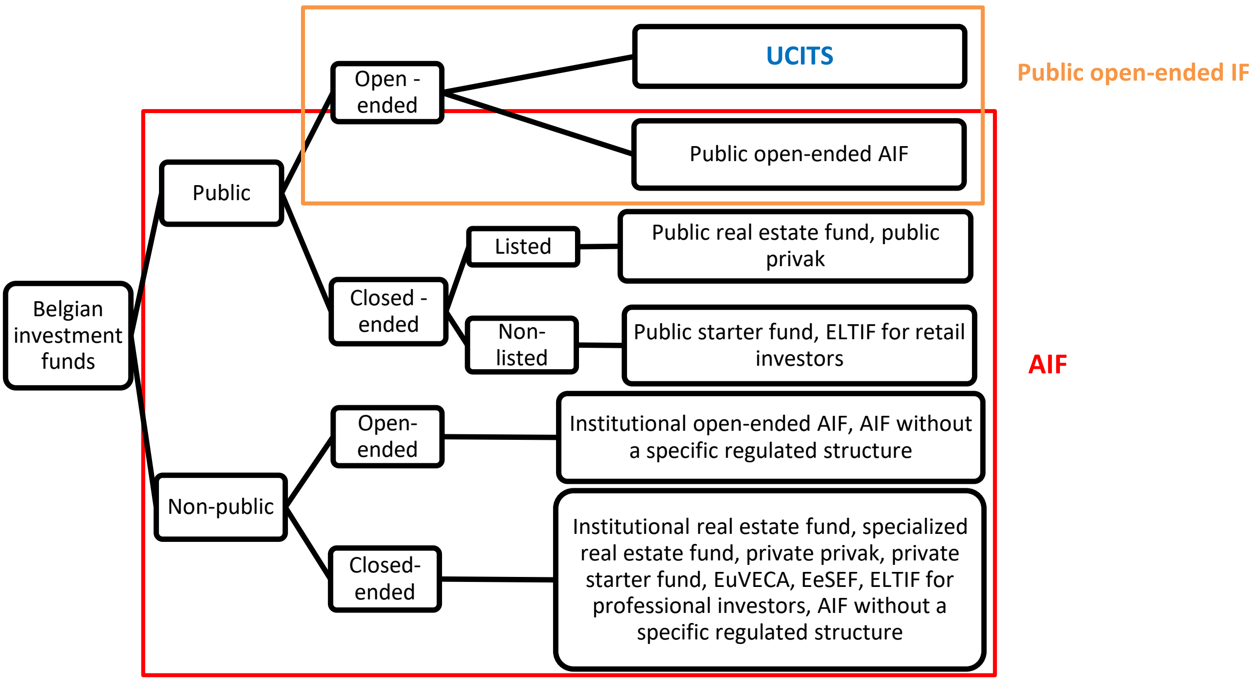
	(Net) Assets [1]				
	2016	**2017**	**2018**	**2019**	**2020**
Belgian investment funds	**144**	**175**	**164**	**185**	**191**
Public	127	155	147	165	172
Non-public	17	19	17	20	19
Belgian asset managers	**248**	**292**	**219**	**246**	**269**
Assets under collective management	146	181	130	144	165
Assets under discretionary management	103	111	90	102	104
Assets under investment advice	2	2	3	5	9
Assets generating fee and commission income for Belgian banks	**531**	**582**	**545**	**617**	**621**
Assets managed in the bank	336	365	350	396	406
Collective management	193	214	209	243	262
Discretionary management	143	151	141	153	144
Collective investment products distributed but not managed	195	217	195	221	215
Foreign investment funds held by Belgian residents [2]	**189**	**214**	**201**	**236**	**235**
Households	100	114	95	107	108
Other investors	89	100	106	129	127
Investments of Belgian insurance companies in investment funds [2]	**46**	**50**	**48**	**60**	**61**
Investments of Belgian institutions for occupational retirement provision in investment funds	**21**	**25**	**25**	**30**	**33**

Source: FSMA, NBB.

Notes:

This table presents the gross statistics (€ billion) that are discussed in this report concerning the assets involved in the Belgian asset management sector and asset management related activities in Belgium. **[1]** For the Belgian investment fund sector the net asset value (NAV) is reported. For Belgian asset managers the assets under management (AuM) are reported. For Belgian banks the assets involved in asset management activities that generate fee and commission income are reported. For foreign investment funds held by Belgian residents the size of the holdings by households and other investors is reported; for insurance companies and institutions for occupational retirement provision (pension funds), the size of their holdings of investment funds is reported. **[2]** The data for 2020 for foreign investment funds held by Belgian residents and for investments of Belgian insurance companies in investment funds refer to end-September 2020.

Chart 2.2: Overview of investment fund types in Belgium



Source: FSMA.

Table 2.2: Registered (sub-)funds and NAV of investment fund types in Belgium *(year-end)*

(a) Number of authorised or registered investment funds with a specific regulatory structure (at sub-fund level)

	2016	2017	2018	2019	2020
UCITS	627	688	715	777	740
Public open-ended AIF	540	370	204	76	34
Public privak/pricaf	1	1	1	1	1
Public real estate fund	0	0	0	0	0
Public starter fund	0	0	0	0	0
Institutional real estate fund	0	0	0	0	0
Institutional open-ended AIF	145	165	127	110	114
Private privak/pricaf	41	52	65	86	114
Specialised real estate fund	0	10	37	121	149
Private starter fund	0	0	0	0	0
EuVECA	0	0	0	0	0
EuSEF	0	0	0	0	0
ELTIF (retail investors)	0	0	0	0	0
ELTIF (professional investors)	0	0	0	0	0
Total	**1.354**	**1.286**	**1.149**	**1.171**	**1.152**

(b) Net asset value (million euro)

	2016	2017	2018	2019	2020
Belgian public open-ended investment funds					
UCITS	81.165	114.449	123.639	152.373	162.207
Public open-ended AIF	45.646	40.619	23.313	12.496	9.541
Other AIFs					
Other public AIFs	135	162	120	136	153
Non-public AIFs	17.124	19.413	16.504	19.683	18.652
Total	**144.070**	**174.643**	**163.576**	**184.688**	**190.553**

(c) Number of reporting investment funds (at sub-fund level)

	2016	2017	2018	2019	2020
Belgian public open-ended investment funds					
UCITS	627	688	715	777	740
Public open-ended AIF	540	370	204	76	34
Other AIFs					
Other public AIFs	1	1	1	1	1
Non-public AIFs	123	140	168	207	241
Total	**1.291**	**1.199**	**1.088**	**1.061**	**1.016**

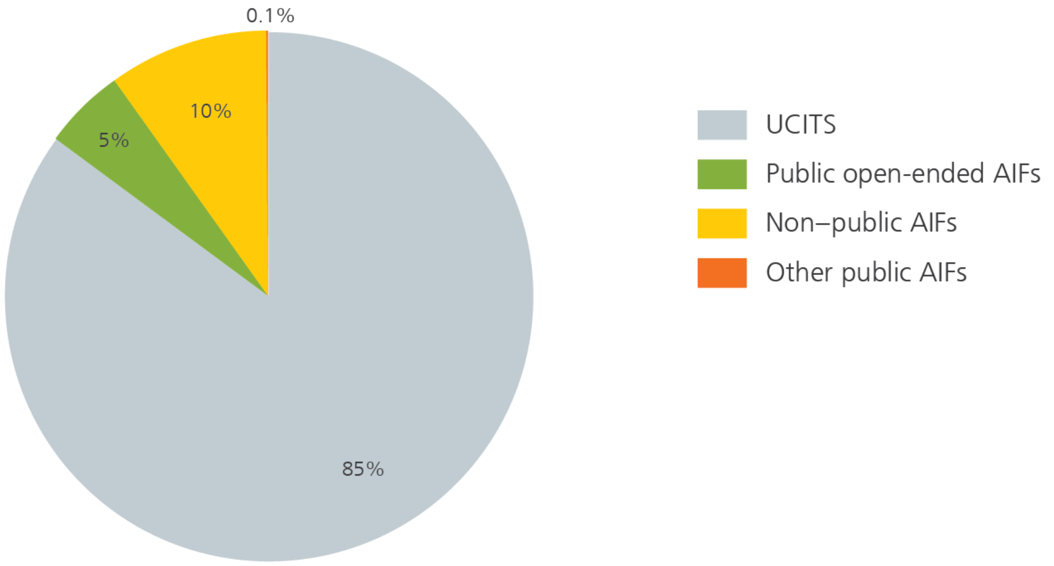
Source: FSMA, FPS Finance.

Notes:

This table presents the number of registered (sub-) funds and their net asset value (in € million) of the Belgian investment fund industry, classified according to the applicable regulatory regime. Panel (a) shows the number of authorised or registered investment funds with a specific regulatory structure (at sub-fund level). These funds are either authorized or registered by the FSMA or registered by the FPS Finance. Panel (b) shows the net asset value of Belgian investment funds

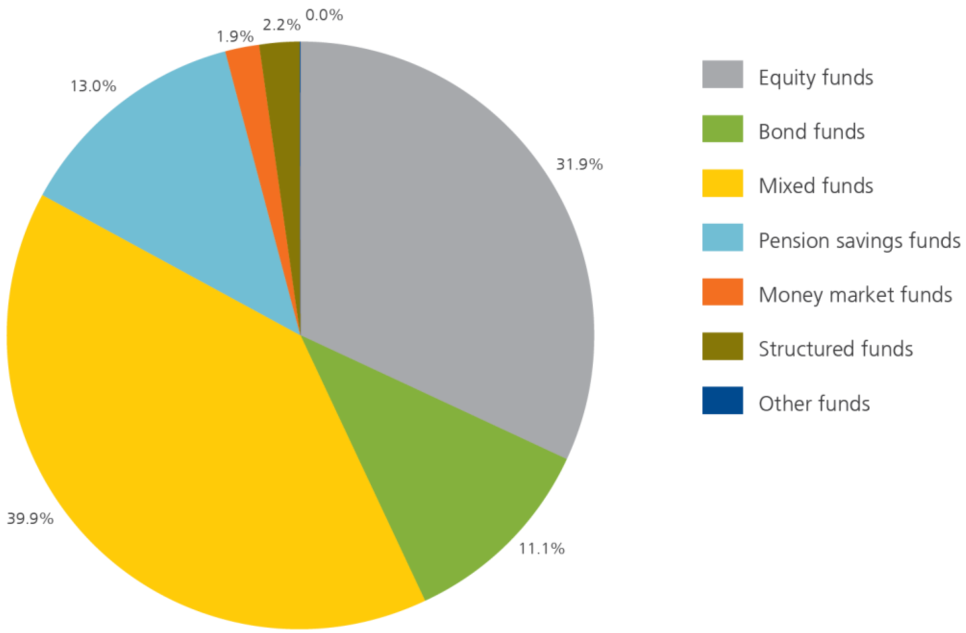
for which the FSMA is the competent authority receiving the reports concerning these funds. Panel (c) shows the number of investment funds for which the net asset value is reported and included in Panel (b).
There is a distinction between the number of funds shown in Panel (a) and (c) because not all entities that take the legal form of an institutional open-ended AIF, a specialised real estate fund, a private privak/pricaf or a private starter fund under Belgian law: (1) are classified as AIFs under the provisions of AIFMD, or (2) have a manager for which the FSMA is the competent authority (it is possible that Belgian AIFs have a manager for which the FSMA is not the competent authority).

Chart 2.3: Breakdown of the NAV of Belgian investment funds according to fund type *(end 2020)*



Source: FSMA.

Chart 2.4: Breakdown of the NAV of public open-ended investment funds by investment policy *(end 2020)*



Source: FSMA.

Table 2.3: Breakdown of the NAV of Belgian public open-ended investment funds according to investment policy and legal form *(€ million, year-end)*

	UCITS					**Public open-ended AIF**					**Total**				
	2016	**2017**	**2018**	**2019**	**2020**	**2016**	**2017**	**2018**	**2019**	**2020**	**2016**	**2017**	**2018**	**2019**	**2020**
Equity funds	34.116	43.063	33.822	51.567	54.691	470	892	165	120	121	34.586	43.955	33.986	51.687	54.813
o/w fund of funds or feeder		*1.467*	*2.321*	*3.366*	*4.414*		*557*	*151*	*120*	*121*		*2.024*	*2.472*	*3.487*	*4.535*
Bond funds	5.467	14.439	15.581	18.271	19.034	3.971	4.694	2.220	14	10	9.438	19.133	17.801	18.285	19.045
o/w fund of funds or feeder		*7.103*	*8.510*	*8.445*	*8.409*		*1.846*	*197*	*14*	*10*		*8.949*	*8.707*	*8.459*	*8.419*
Mixed funds	9.582	49.862	53.886	62.736	66.237	462	11.016	5.129	2.694	2.360	10.044	60.878	59.016	65.430	68.598
o/w fund of funds or feeder		*39.628*	*44.123*	*52.153*	*54.725*		*10.606*	*4.894*	*2.578*	*2.239*		*50.234*	*49.017*	*54.731*	*56.964*
Pension savings funds	0	0	6.868	12.505	15.246	18.059	19.651	11.360	8.804	6.998	18.059	19.651	18.228	21.309	22.244
o/w fund of funds or feeder							*274*	*279*	*359*	*400*		*274*	*279*	*359*	*400*
Money market funds	756	1.898	9.279	2.309	3.188	1.184	619	2.308			194	2.517	11.587	2.309	3.188
Structured funds	4.638	4.545	3.811	4.657	3.756	6.121	3.654	2.070	864	52	10.759	8.199	5.882	5.521	3.808
Other funds	514	643	391	328	54	120	92	60			634	735	451	328	54
Fund of funds **[1]**	26.092					15.259					41.351				
Total	**81.165**	**114.449**	**123.639**	**152.373**	**162.207**	**45.646**	**40.619**	**23.313**	**12.496**	**9.541**	**126.811**	**155.067**	**146.951**	**164.869**	**171.749**
o/w fund of funds or feeder		***48.198***	***54.954***	***63.964***	***67.548***		***13.283***	***5.522***	***3.071***	***2.771***	***41.351***	***61.418***	***60.475***	***67.036***	***70.319***

Source : FSMA.

Notes:

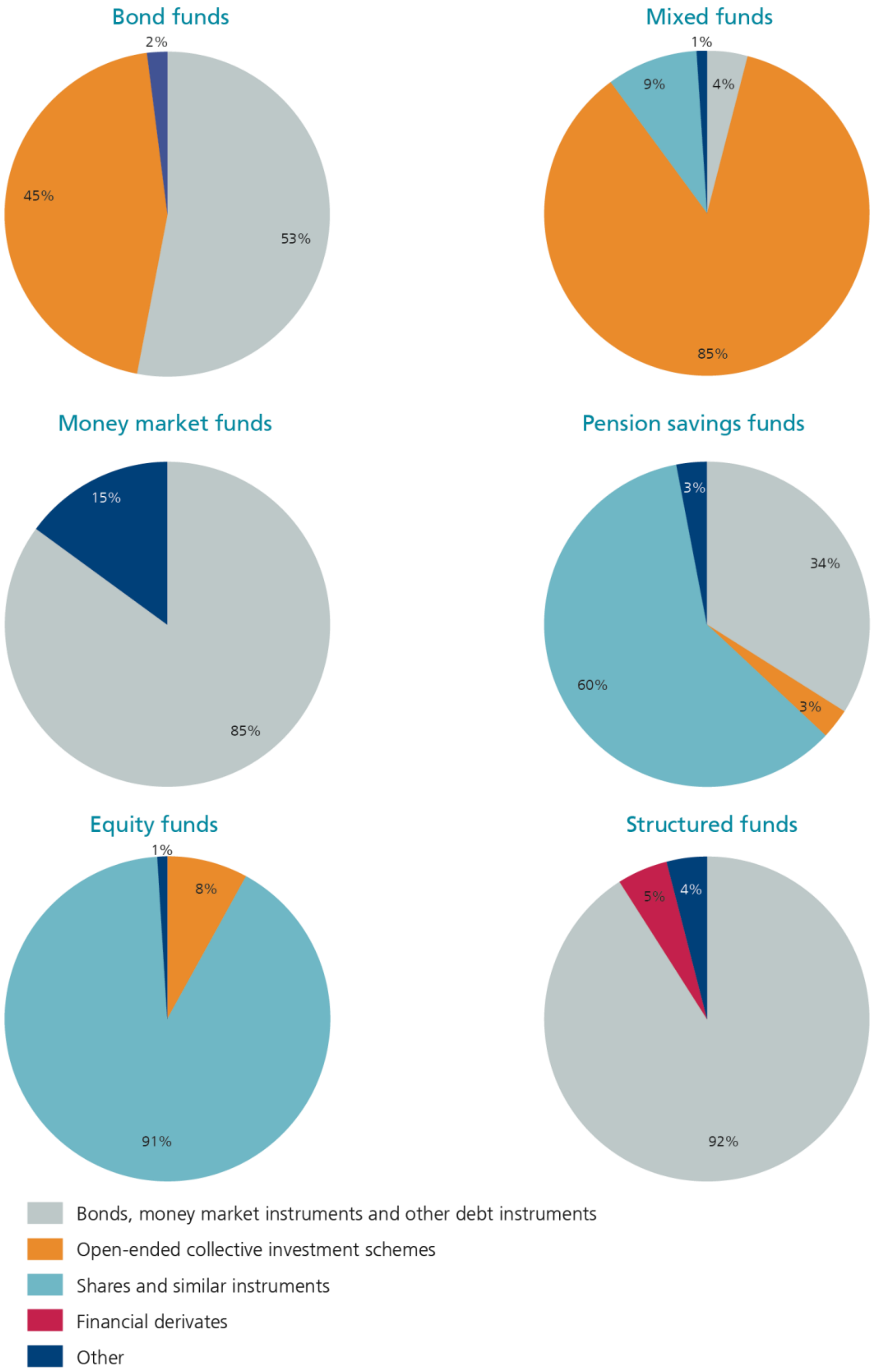
This table presents a breakdown of the net asset value (in € million) of the Belgian public open-ended investment funds, classified according to their investment policy and the applicable regulatory regime (UCITS or AIF). **[1]** As of the end of 2017 the FSMA no longer classifies investment funds solely into the investment policy 'fund of funds'. Investment funds investing primarily indirectly in securities or money market instruments, by investing into units of other funds, are first classified according to the asset class(es) they intend to gain (indirect) exposure, and secondly labeled as 'fund of funds' and/or 'feeders'. A feeder fund is a (sub-)fund which invests at least 85% of its assets in units of another (sub-)fund (the master fund). Some investment funds have been subject to statistical reclassification in 2017.

Table 2.4: Breakdown of the NAV of Belgian public open-ended investment funds according to investment policy and investments *(€ million, end 2020)*

	Deposits	**Bonds, money market instruments and other debt instruments**	**Shares and similar instruments**	**Other securities**	**Open-ended collective investment schemes**	**Financial derivatives**	**Receivables and remaining assets**	**Payables and remaining liabilities**	**Total net assets**
Bond funds	307,76	10.012,95	48,25		8.663,18	2,98	84,86	-75,35	**19.044,63**
Mixed funds	989,73	2.844,25	6.239,58	8,03	58.427,00	95,90	377,66	-384,28	**68.597,87**
Money market funds	471,91	2.716,38						-0,58	**3.187,70**
Other funds	1,28	48,58	0,35			3,88	4,21	-4,35	**53,95**
Pension savings funds	565,86	7.549,09	13.372,76	0,92	744,37	4,17	116,58	-109,66	**22.244,08**
Equity funds	506,13	64,47	49.691,35	11,44	4.620,77	4,69	313,04	-399,29	**54.812,58**
Structured funds	114,23	3.461,98			1,19	205,08	283,64	-258,16	**3.807,96**
Total	**2.956,88**	**26.697,69**	**69.352,29**	**20,39**	**72.456,51**	**316,70**	**1.180,00**	**-1.231,68**	**171.748,78**

Source : FSMA.

Chart 2.5: Breakdown of the NAV of Belgian public open-ended investment funds according to investment policy and investments *(€ million, end 2020)*



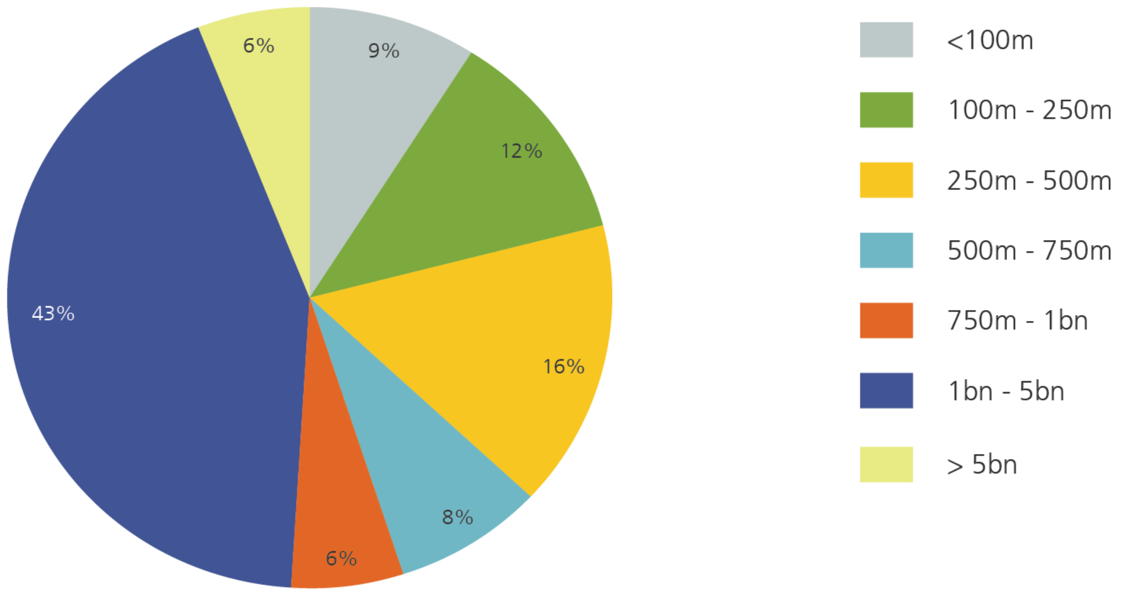
Source : FSMA.

Table 2.5: Breakdown of the total NAV of Belgian public open-ended investment funds according to investment fund size *(€ million, end 2020)*

Size bucket	Total net assets	Number of sub-funds
<100m	15.424	483
100m - 250m	20.725	128
250m - 500m	26.944	75
500m - 750m	13.506	22
750m-1bn	10.452	12
1bn - 5bn	73.920	41
>5bn	10.777	2
Total	**171.749**	**763**

Source : FSMA.

Chart 2.6: Breakdown of the NAV of Belgian public open-ended investment funds according to investment fund size *(% of total net asset value, end 2020)*



Source : FSMA.

Table 2.6: Number of authorised Belgian UCITS and AIF management companies, their total assets under management and assets under investment advice *(€ billion, year-end)*

	2016	2017	2018	2019	2020
Number of authorised management companies	9	9	13	14	15
Assets under management	**248.3**	**291.6**	**219.4**	**245.6**	**268.5**
Collective management	145.7	181.0	129.7	143.7	164.6
Discretionary management	102.5	110.6	89.7	101.8	103.9
Assets under investment advice	**2.4**	**1.9**	**3.4**	**4.6**	**8.7**
Assets under management and under advice	**250.7**	**293.5**	**222.8**	**250.2**	**277.2**

Source : FSMA.

Notes :

This table presents the number of authorised Belgian management companies (UCITS management companies and/or AIF managers), their assets under management and assets under investment advice. The table does not contain statistics on registered ('small') AIF managers. The assets under management exclude the following amounts: (1) management of the assets delegated to another asset manager governed by foreign law, (2) management of UCITS and AIFs governed by Belgian law that is carried out abroad, (3) the amount managed by branches registered in Belgium of asset managers governed by another EU Member State, (4) management carried out by small AIF managers. The investment advice included in these figures refers to investment advice given in the context of a specific portfolio (structural investment advice). Ad hoc investment advice at the request of the client is therefore excluded.

Table 2.7: Number of registered (sub-)funds and net asset value of publicly offered open-ended foreign investment fund types in Belgium *(year-end)*

		Registered/ notified (sub-) funds					Net asset value (€ million)				
		2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
UCITS	Umbrella funds	528	531	550	544	550	N.A.	N.A.	N.A.	N.A.	N.A.
	Sub-funds	3,819	3,992	4,327	4,492	4,513					
Public open-ended AIF	Umbrella funds	5	4	2	2	2	5,624	5,018	318	318	318
	Sub-funds	40	17	4	4	4					
Total	Umbrella funds	533	535	552	546	552	5,624	5,018	318	318	318
	Sub-funds	3,859	4,009	4,331	4,496	4,517					

Source : FSMA.

Notes:

This tables presents the number of registered (sub-) funds and their net asset value (in € million) of the foreign open-ended investment funds publicly offered in Belgium, classified according to the applicable regulatory regime. The table does not contain statistics on foreign investment funds distributed, but not publicly offered, in Belgium.

Table 2.8: Investments by Belgian residents in foreign investment funds *(€ billion, end of period)*

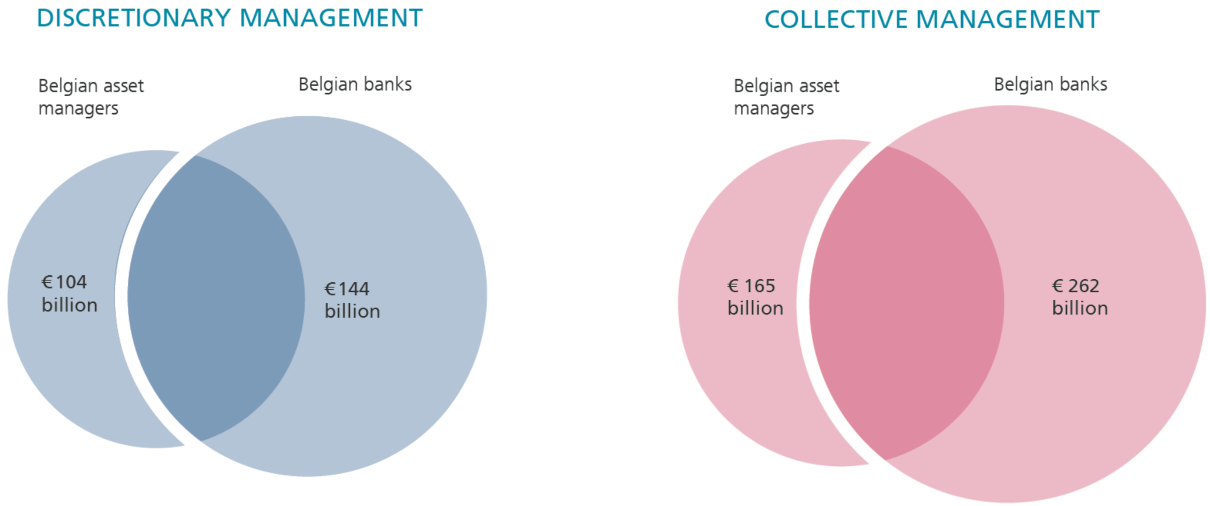
	December 2018			**December 2019**		
	MMFs	**Non-MMF IFs**	**Total**	**MMFs**	**Non-MMF IFs**	**Total**
Total	**11.4**	**189.8**	**201.2**	**16.1**	**219.5**	**235.6**
By holding sector						
Households	2.6	92.1	94.7	2.1	104.4	106.5
Other non-financial investors (incl. general government)	2.1	9.3	11.4	5.0	11.9	16.9
Banks	0.0	0.0	0.0	0.0	0.0	0.0
Non-MMF investment funds	2.6	46.2	48.8	2.9	55.3	58.2
Insurance corporations	2.3	24.7	27.0	2.0	28.6	30.6
Pension funds	0.2	16.1	16.3	0.3	17.1	17.4
Other financial corporations	1.7	1.3	3.0	3.8	2.2	6.0
By issuing country						
DE	0.0	6.1	6.1	0.0	7.0	7.0
FR	6.3	12.5	18.8	11.2	12.2	23.4
IE	0.0	16.1	16.1	0.1	17.3	17.4
LU	5.0	152.2	157.2	4.8	180.4	185.2
NL	-	1.1	1.1	-	0.8	0.8
Other countries	0.0	1.9	1.9	0.0	1.8	*1.8*

	March 2020			**September 2020**		
	MMFs	**Non-MMF IFs**	**Total**	**MMFs**	**Non-MMF IFs**	**Total**
Total	**15.7**	**194.0**	**209.7**	**14.0**	**221.1**	**235.1**
By holding sector						
Households	2.2	91.8	94.0	2.0	105.6	107.6
Other non-financial investors (incl. general government)	2.3	10.6	12.9	4.1	11.1	15.2
Banks	0.0	0.0	0.0	0.0	0.1	0.1
Non-MMF investment funds	2.8	48.9	51.7	2.5	55.9	58.4
Insurance corporations	2.6	25.9	28.5	2.4	29.3	31.7
Pension funds	0.3	14.9	15.2	0.2	17.2	17.4
Other financial corporations	5.5	1.9	7.4	2.8	1.9	4.7
By issuing country						
DE	0.0	6.2	6.2	0.0	6.9	6.9
FR	10.0	10.6	20.6	8.1	11.3	29.4
IE	0.1	15.6	15.7	0.3	17.9	18.2
LU	5.6	159.4	165.0	5.6	182.5	188.1
NL	-	0.7	0.7	-	0.8	0.8
Other countries	0.0	1.5	1.5	0.0	1.8	1.8

Source: NBB, ECB (CSDB).

Notes:
This table presents a breakdown, by holding sector and by issuing country, of the investments by Belgian residents in foreign investment funds. The figures are based on the securities holdings statistics (CSDB).

Chart 2.7: Overlap between AuM of Belgian banks and AuM of Belgian asset managers *(end 2020)*



Source: FSMA, NBB.

Table 2.9: Fee and commission (F&C) income and assets involved in asset management-related activities of Belgian banks

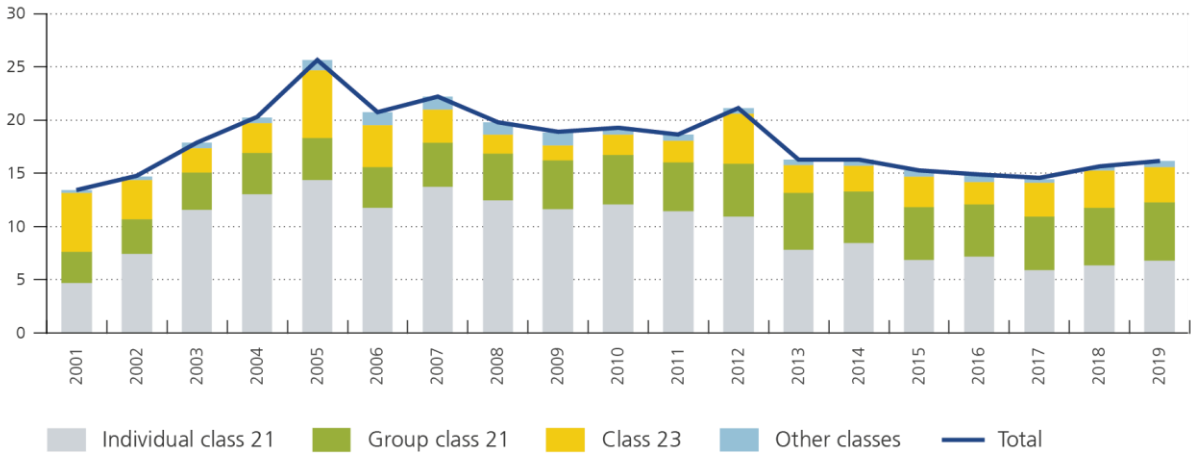
	2018			2019			2020		
	Assets involved	**F&C income**	**Average remuner -ation**	**Assets involved**	**F&C income**	**Average remuner-ation**	**Assets involved**	**F&C income**	**Average remuner -ation**
	€ bn, year-end	*€ mln, full year*	*bps*	*€ bn, year-end*	*€ mln, full year*	*bps*	*€ bn, year-end*	*€ mln, full year*	*bps*
Assets managed within the bank **[1]**	350	1,881	*54*	396	1,928	*49*	406	1,905	*47*
Collective management	209	N.A.	N.A.	243	N.A.	N.A.	262	N.A.	N.A.
Discretionary management	141			153			144		
Collective investment products distributed by the bank (but not managed within the bank) **[2]**	195	781	*40*	221	746	*34*	215	716	*33*
Total of the activities above	**545**	**2,662**	***49***	**617**	**2,674**	***43***	**621**	**2,621**	***42***
Custody **[3]**	3,089	714	*2*	3,698	699	*2*	3,750	755	*2*
Collective investment	715	N.A.	N.A.	1,056	N.A.	N.A.	967	N.A.	N.A.
Other	2,375			2,643			2,782		
Central administrative services for collective investment **[4]**	162	122	*8*	179	126	*7*	191	151	*8*

Source: NBB, FINREP.

Notes:

This table presents statistics of the asset management related activities of Belgian banks on a consolidated basis. It shows, by type of activity, the assets involved, the (gross) fee and commission income earned and the average remuneration (calculated as the ratio of the assets involved and the (gross) fee and commission income). **[1]** "Assets managed within the bank" refers to assets belonging directly to the customers, for which the institution is providing management. The consolidated figures also include assets managed by subsidiaries of Belgian banks. **[2]** "Collective investment products distributed by the bank (but not managed within the bank)" refers to collective investment products issued by entities outside the group that the institution has distributed to its current customers. **[3]** "Custody" refers to the services of safekeeping and administration of financial instruments for the account of clients provided by the institution and services related to custodianship such as cash and collateral management. **[4]** "Central administrative services for collective investment" refers to the administrative services provided by the institution to collective investment undertakings. It includes, among others, the services of transfer agent; of compiling accounting documents; of preparing the prospectus, financial reports and all other documents intended for investors; of carrying out the correspondence by distributing financial reports and all other documents intended for investors; of carrying out issues and redemptions and keeping the register of investors; as well as of calculating the net asset value.

***Chart 2.8: Belgian insurers' life insurance premiums** (€ billion)*



Source: NBB.

***Table 2.10: Assets for class 23 contracts' technical provisions of Belgian insurers** (€ million, end of period)*

	2016	2017	2018	2019	Sept. 2020
Collective investment undertakings	27,735	31,431	31,615	40,12	40,353
Equity funds	11,511	9,304	8,371	12,885	11,247
Asset allocation funds **[1]**	6,668	6,264	6,638	13,512	11,424
Other funds **[2]**	6,493	11,649	11,895	8,924	9,133
Debt funds	2,605	3,763	4,041	3,962	7,289
MMFs, real estate funds and alternative funds **[3]**	457	450	670	837	1,26
Cash and deposits	2,416	2,697	2,403	2,218	1,626
Deposits with term longer than 1 year	2,310	2,127	1,856	1,647	1,44
Transferable deposits and cash	106	569	547	571	186
Corporate bonds	600	797	995	1,168	1,131
Other **[4]**	672	612	778	790	778
Total	**31,423**	**35,536**	**35,791**	**44,297**	**43,888**

Source: NBB, Solvency II reporting.

Notes:

This table presents a breakdown of the assets covering the technical provisions for class 23 contracts of Belgian insurers. **[1]** "Asset allocation funds" are collective investment undertakings which invest their assets pursuing a specific asset allocation objective, e.g. primarily investing in the securities of companies in countries with nascent stock markets or small economies, specific sectors or group of sectors, specific countries or other specific investment objective **[2]** "Other funds" are funds other than equity, debt, money market, asset allocation, real estate, alternative, private equity and infrastructure funds **[3]** "Alternative funds" are collective investment undertakings whose investment strategies falling under categories such as hedging, event driven, fixed income directional and relative value, managed futures, commodities etc. **[4]** "Other" includes structured notes, mortgages and loans, government bonds, equity, etc.

Table 2.11: Belgian insurers' investments in undertakings for collective investment other than in the context of their unit-linked life insurance business *(€ million, end of period)*

	2016	2017	2018	2019	Sept. 2020
Debt funds	5,870	5,335	5,155	6,593	6,751
Money Market Funds (MMFs)	2,997	2,108	1,045	1,522	1,36
Equity funds	1,495	1,840	1,548	1,564	1,73
Real estate funds	1,102	1,315	1,359	1,928	1,99
Alternative funds	859	1,018	986	2,053	2,525
Other funds	809	1,089	1,078	652	746
Private equity funds	669	761	858	900	929
Asset allocation funds	223	315	268	553	510
Infrastructure funds	162	251	226	444	473
Total	**14,187**	**14,032**	**12,523**	**16,209**	**17,014**

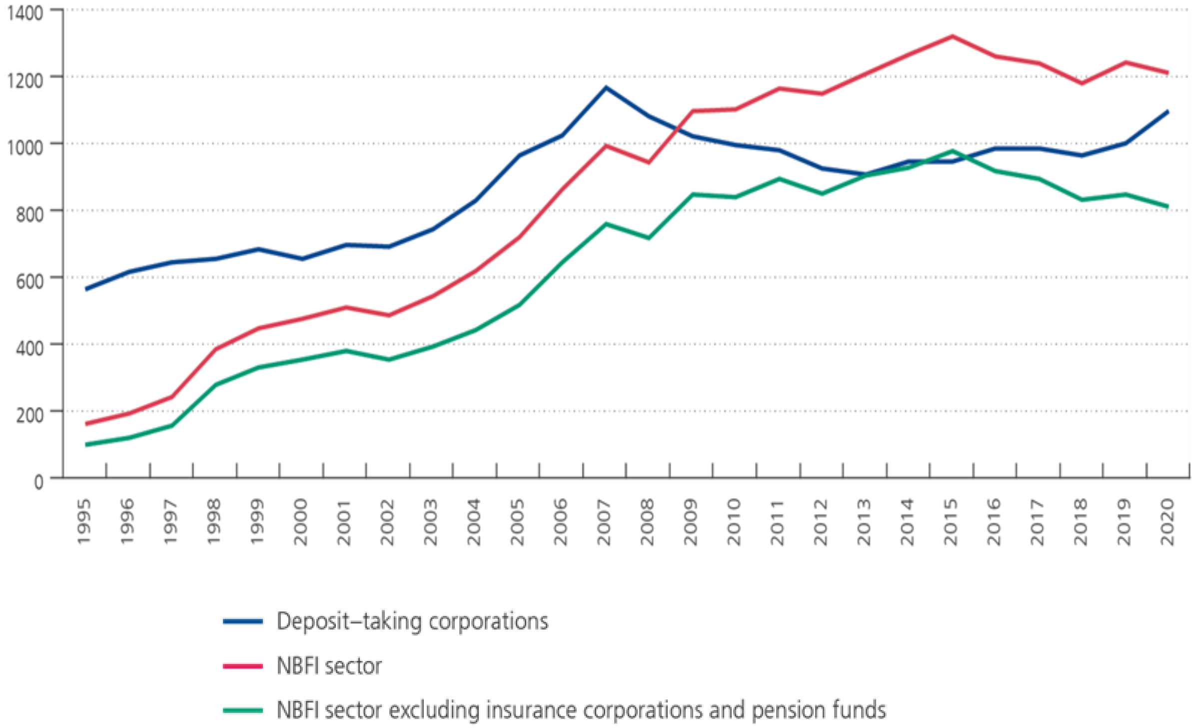
Source: NBB, Solvency II reporting.

Table 2.12: Total assets and investments by Belgian institutions for occupational retirement provision *(€ million, year-end)*

	2015	2016	2017	2018	2019	2020
Investments	22,529	27,373	32,486	31,936	37,819	40,868
Investment fund units	17,330	20,914	25,256	24,975	30,007	32,947
Total assets	**24,693**	**29,781**	**35,147**	**34,314**	**40,209**	**42,675**

Source: FSMA.

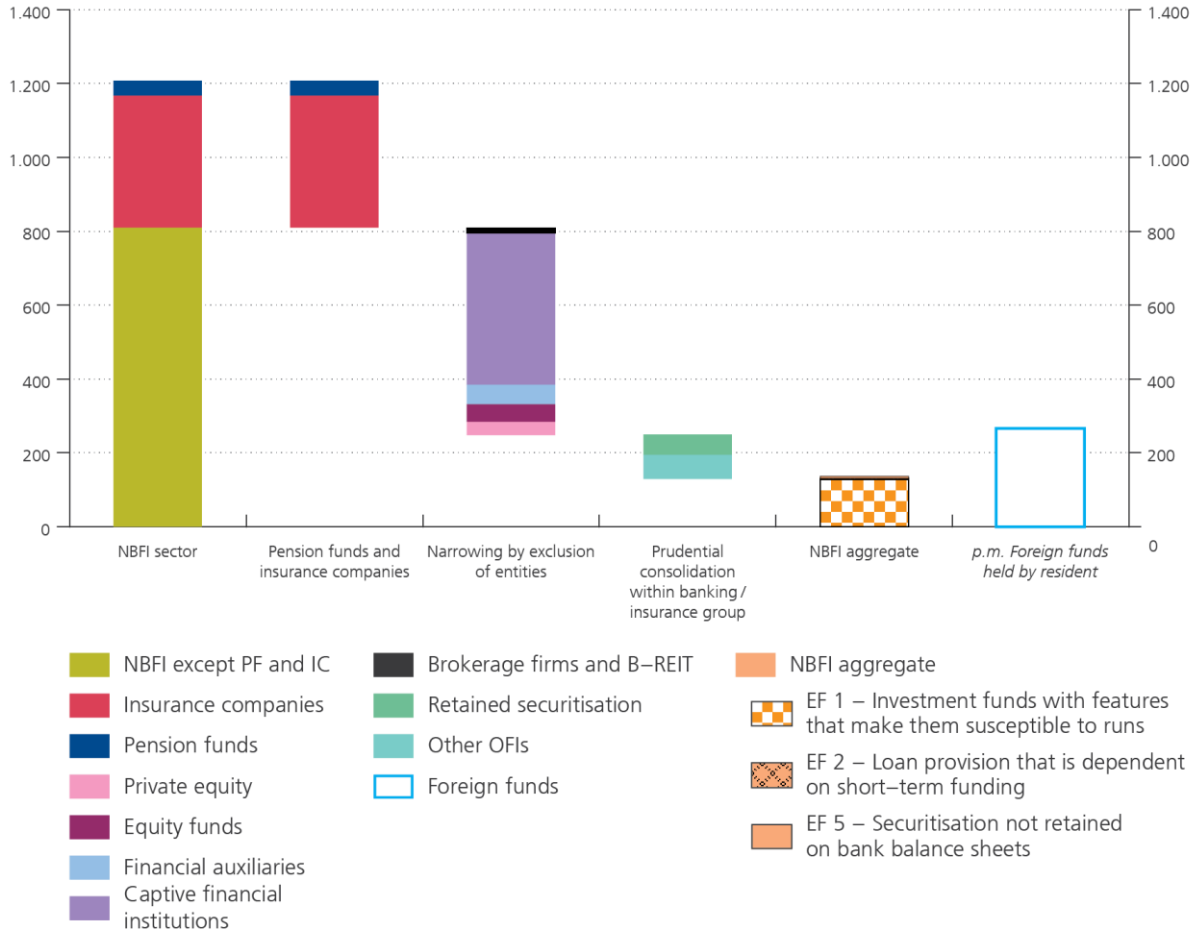
Chart 3.1: Total financial assets of the Belgian financial sector *(in € billion)*



Source: NBB calculations based on NAI data.

Notes: NBFI = Non-bank financial intermediation. Data for 2020 is September 2020.

***Chart 3.2: Delineation of the Belgian NBFI sector according to the narrow FSB definition** (€ billion, September 2020)*

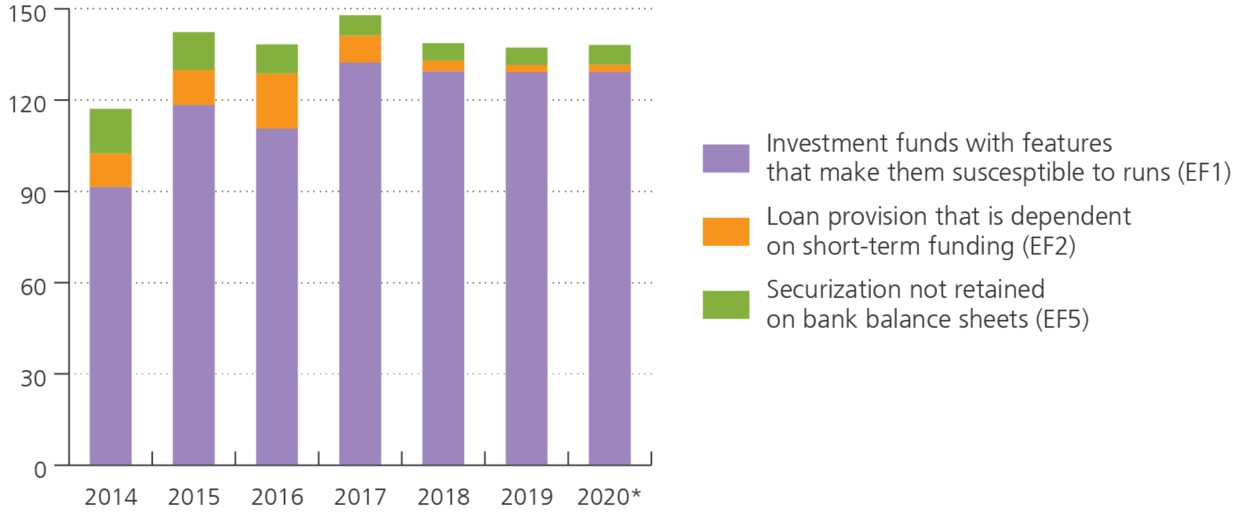


Source: NBB calculations based on NAI data.

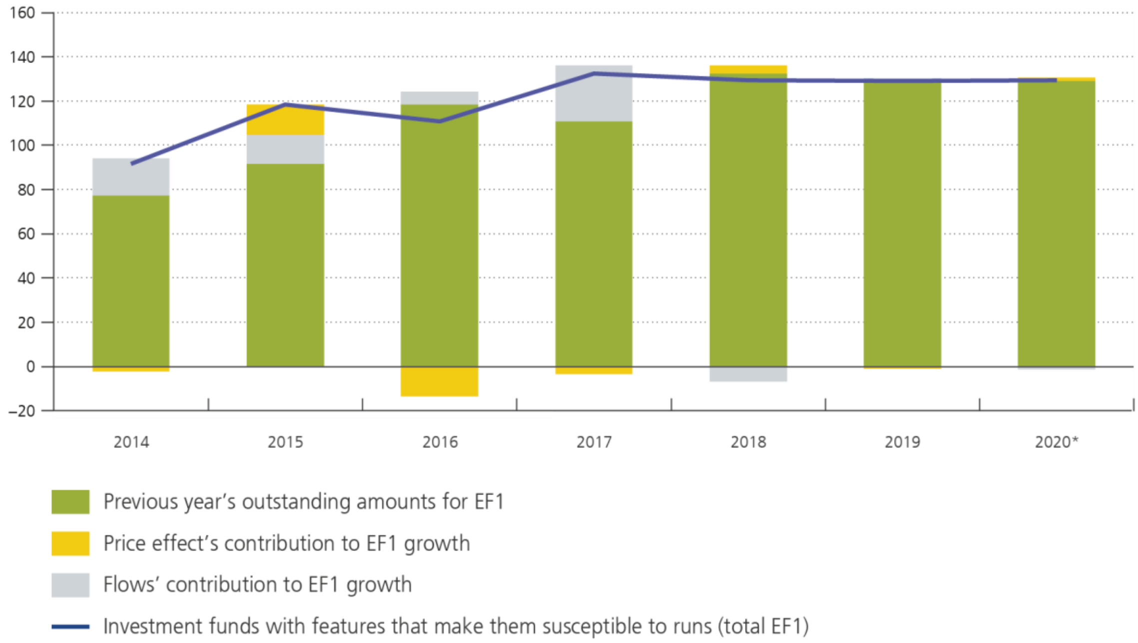
Notes: NBFI = Non-bank financial intermediation ; PF = Pension fund; IC = Insurance company; OFIs = Other financial intermediaries; B-REIT = Belgian Real Estate Investment Trust

***Chart 3.3: Belgian NBFI sector, broken down by economic function, according to the narrow concept of the FSB** (€ billion)*

(a) End-of-period outstanding amounts



(b) End-of-period outstanding amounts and distinction between flow and price effect for EF 1

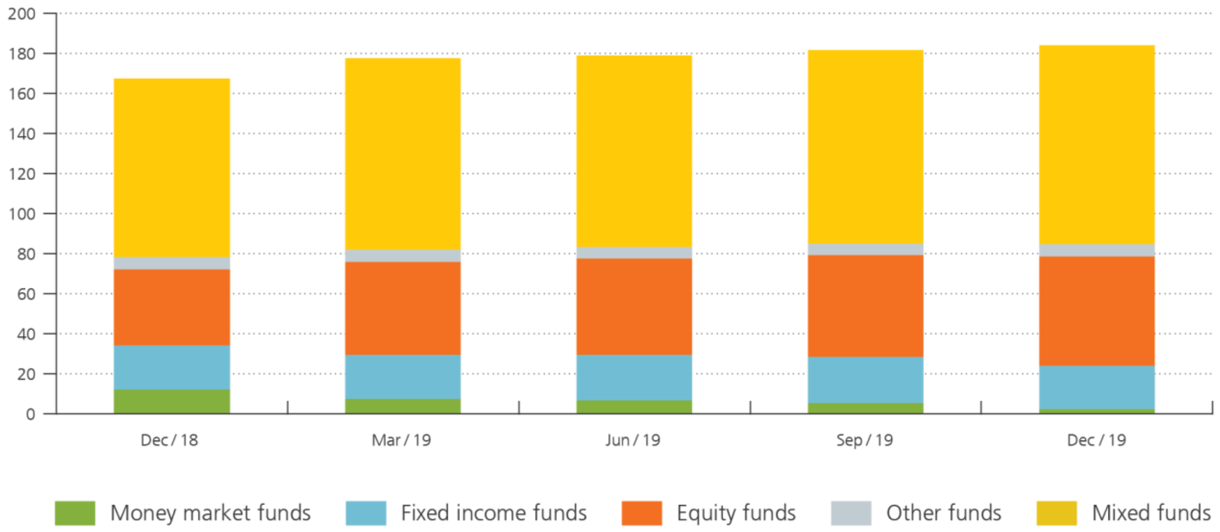


Source: NBB calculations based on NAI data.

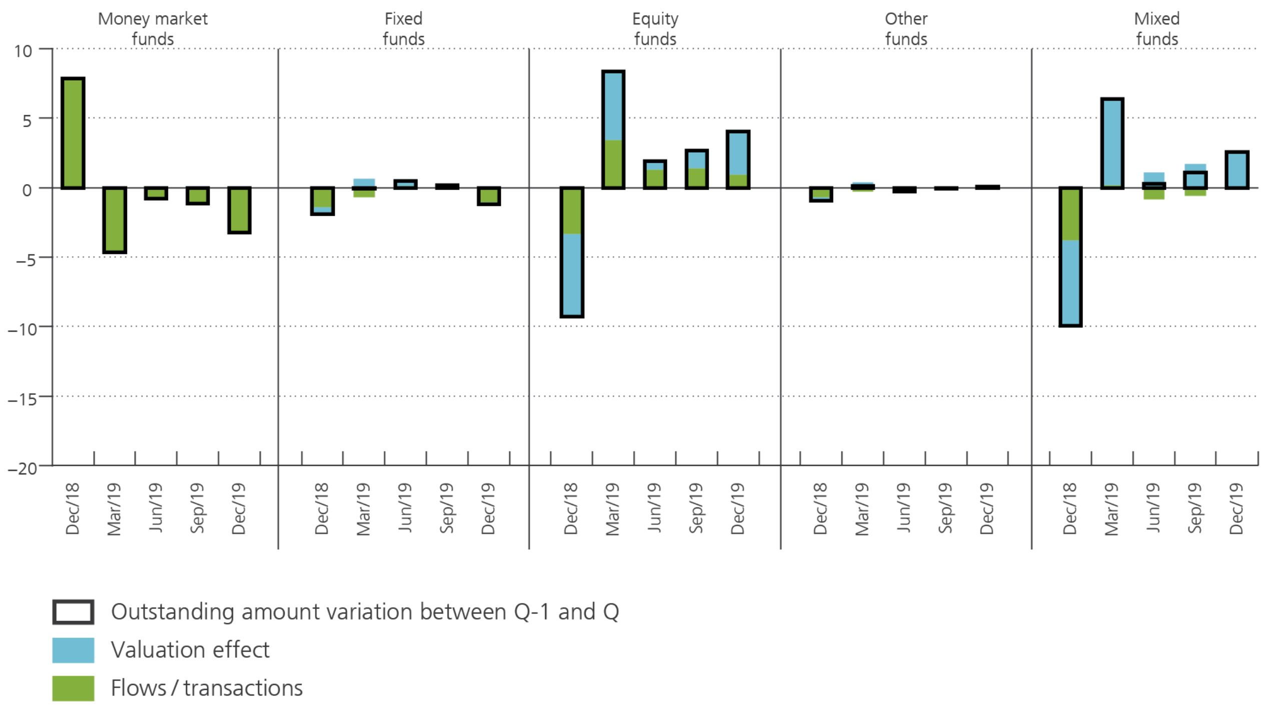
Notes: *Data for 2020 refers to September 2020

Chart 3.4: Belgian investment funds total financial assets (end 2018 – end 2019) *(€ billion)*

(a) End-of-period outstanding amounts



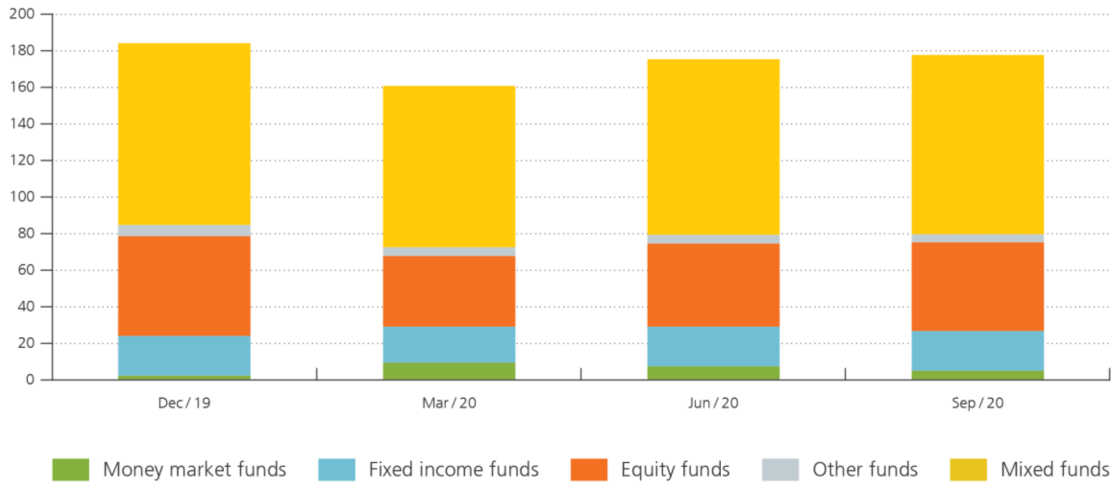
(b) Quarterly outstanding amount variation distinguished between flow and valuation effect



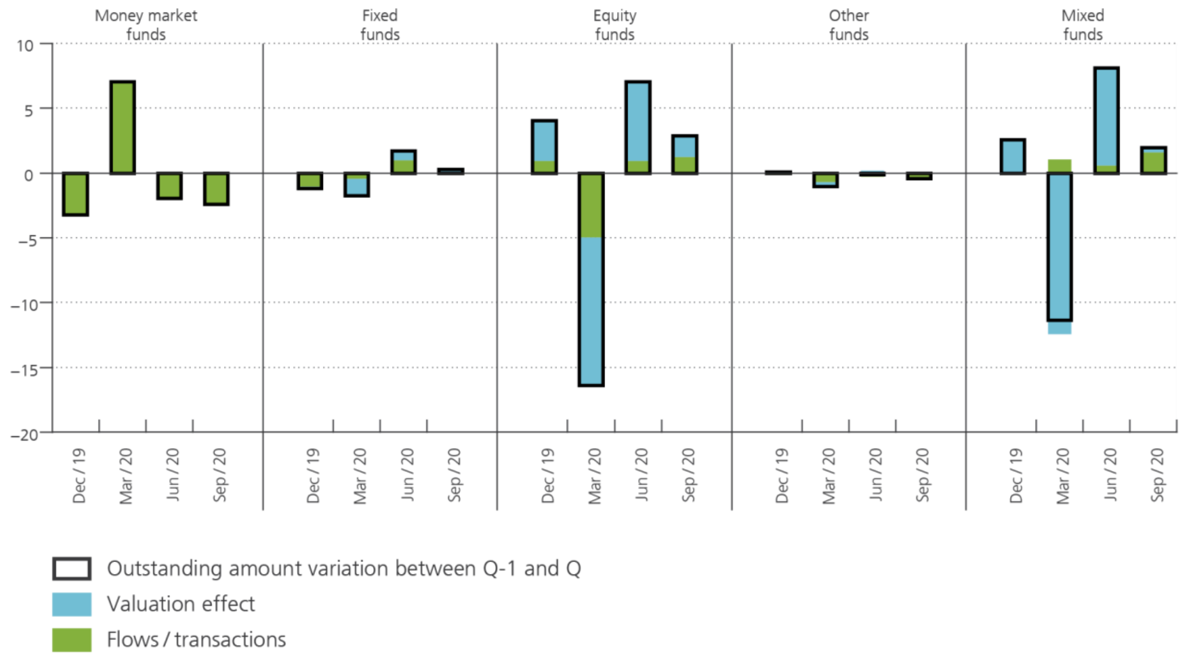
Source: NBB calculations based on NAI data.

Chart 3.5: Belgian investment funds total financial assets (end 2019 – September 2020) *(€ billion)*

(a) End-of-period outstanding amounts

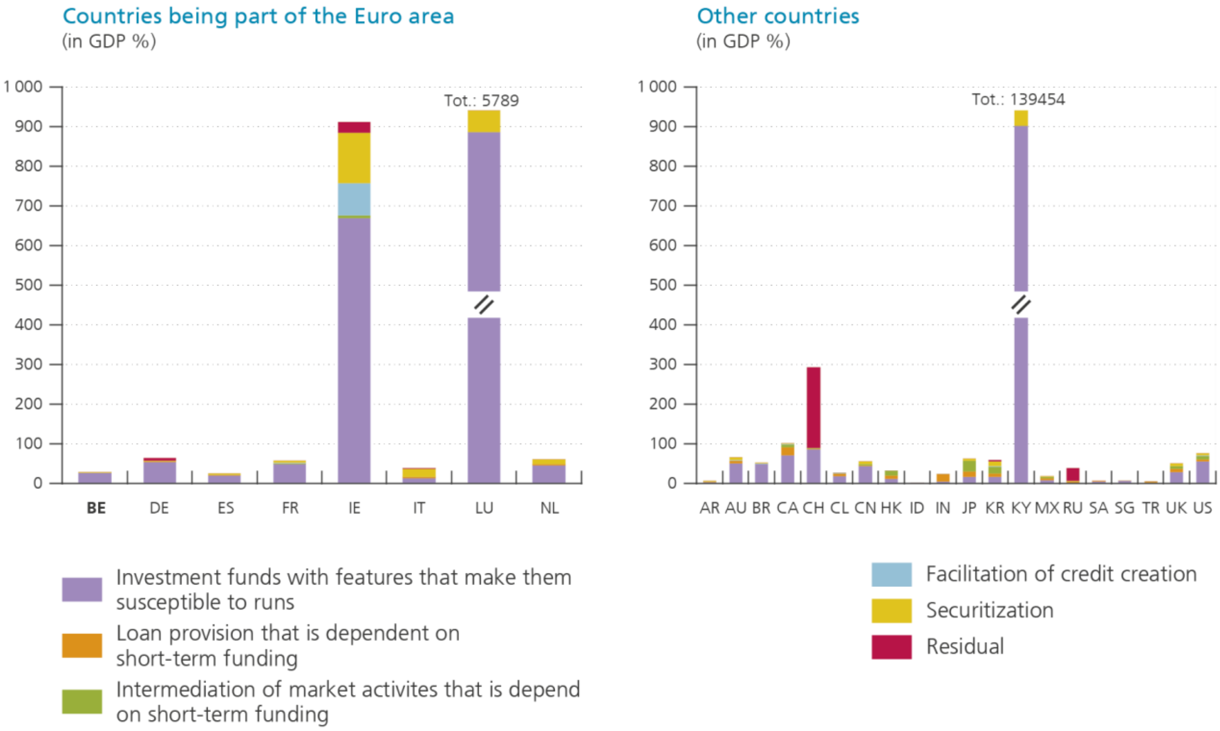


(b) Quarterly outstanding amount variation distinguished between flow and valuation effect



Source: NBB calculations based on NAI data.

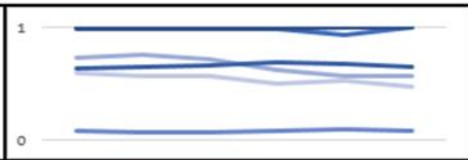
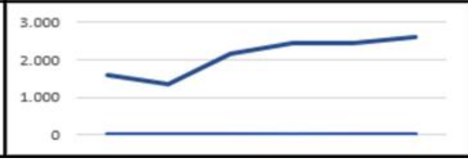
***Chart 3.6: International comparison of the NBFI sector: narrow FSB measure*[1] *(% GDP, end 2019)*



Sources: FSB, NBB.

__Notes:__ **[1]** Entities consolidated in banking groups are excluded if these data are available; **[2]** Residual = part of the NBFI sector that is not classified in an economic function.

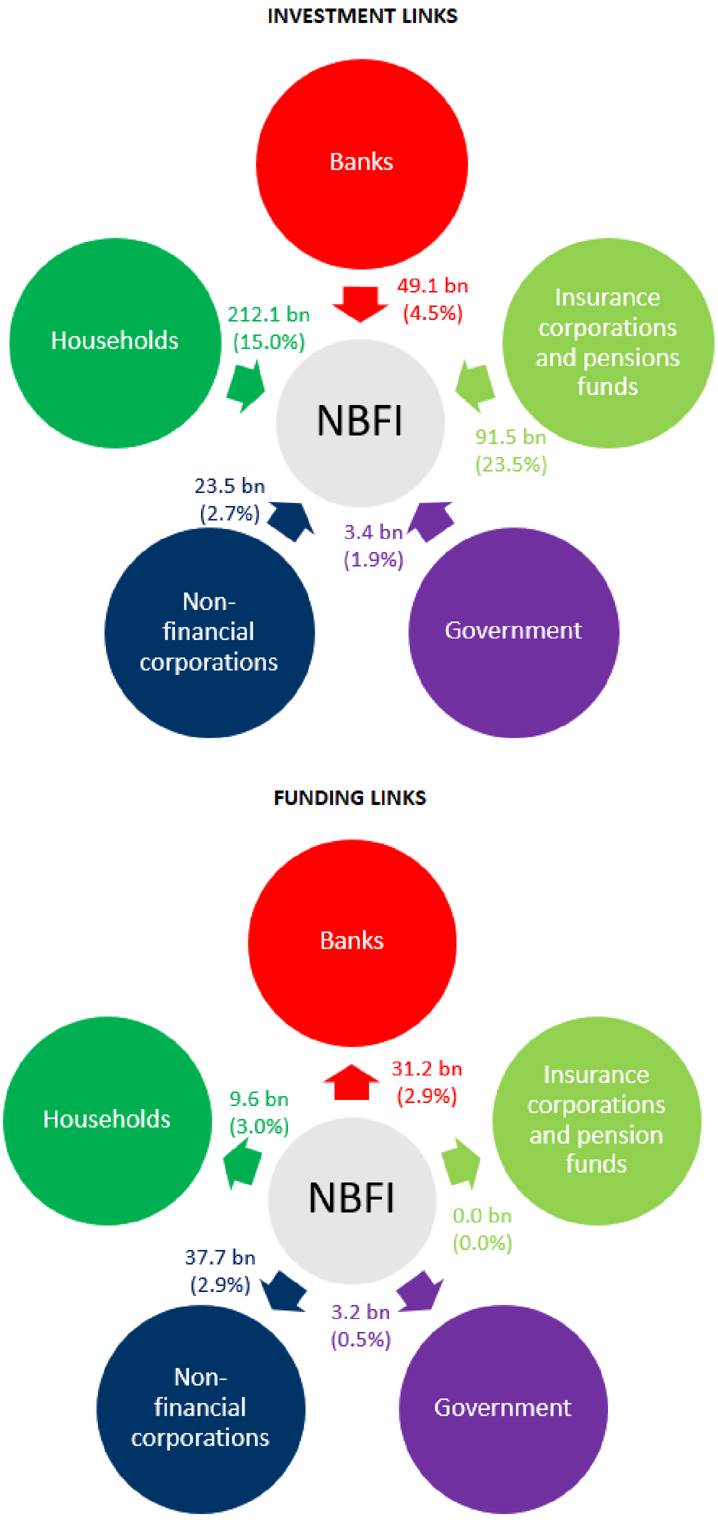
***Table 4.1: Risk metrics for the Belgian NBFI sector according to type of risk and economic function** (ratios)*

Risk Metric		2014	2015	2016	2017	2018	2019	Trend (2014 - 2019)	Intrepretation
Credit Intermediation 1 (CI1) **[1]**	EF1 (Other non-Equity Funds)	0,59	0,57	0,56	0,51	0,52	0,47		Between 0 and 1 ; Higher values show more involvement in credit intermediation
	EF1 (Fixed Income Funds)	0,73	0,76	0,72	0,62	0,56	0,57		
	EF1 (Mixed Funds)	0,08	0,08	0,07	0,08	0,10	0,08		
	EF1 (Money Market Funds)	1,00	1,00	1,00	0,99	0,94	1,00		
	EF2 (Finance companies)	0,64	0,65	0,66	0,69	0,68	0,66		
	EF5 (SFV's)	0,99	0,99	0,99	0,99	1,00	1,00		
Credit Intermediation 2 (CI2) **[2]**	EF1 (Other non-Equity Funds)	0,00	0,00	0,00	0,00	0,00	0,00		
	EF1 (Fixed Income Funds)	0,00	0,00	0,00	0,00	0,00	0,00		
	EF1 (Mixed Funds)	0,00	0,00	0,00	0,00	0,00	0,00		
	EF1 (Money Market Funds)	0,00	0,00	0,00	0,00	0,00	0,00		
	EF2 (Finance companies)	0,41	0,40	0,43	0,45	0,45	0,45		
	EF5 (SFV's)	0,91	0,94	0,94	0,95	0,96	0,95		
Maturity Transformation 1 (MT1) **[3]**	EF1 (Other non-Equity Funds)	0,54	0,52	0,51	0,47	0,46	0,43		Between -1 and +1 ; 0 means no maturity transformation, negative value implies negative maturity transformation
	EF1 (Fixed Income Funds)	0,62	0,53	0,59	0,50	0,48	0,51		
	EF1 (Mixed Funds)	0,05	0,05	0,05	0,06	0,07	0,06		
	EF1 (Money Market Funds)	0,10	0,18	0,13	0,10	0,08	0,03		
	EF2 (Finance companies)	-0,29	-0,33	-0,32	-0,36	-0,38	-0,39		
	EF5 (SFV's)	-0,06	-0,04	-0,04	-0,03	-0,02	-0,03		
Maturity Transformation 2 (MT2) **[4]**	EF1 (Other non-Equity Funds)	2,16	2,07	2,05	1,88	1,86	1,76		Value =1 means ST liabilities fully covered by ST assets ; Value >1 means ST funding dependence ; Value between 0 and 1 indicates negative maturity transformation
	EF1 (Fixed Income Funds)	2,63	2,13	2,42	2,00	1,93	2,06		
	EF1 (Mixed Funds)	1,05	1,05	1,05	1,06	1,07	1,07		
	EF1 (Money Market Funds)	1,12	1,23	1,15	1,11	1,09	1,03		
	EF2 (Finance companies)	0,55	0,56	0,58	0,57	0,50	0,54		
	EF5 (SFV's)	0,30	0,41	0,36	0,44	0,50	0,42		
Liquidity Transformation 1 (LT1) **[5]**	EF1 (Other non-Equity Funds)	1,91	1,91	1,89	1,92	1,93	1,92		Between 0 and 2 ; Value =1 means ST liabilities equal to liquid assets, no liquidity transformation ; Value >1 : substantial liquidity mismatch
	EF1 (Fixed Income Funds)	1,90	1,84	1,85	1,87	1,88	1,91		
	EF1 (Mixed Funds)	1,95	1,80	1,93	1,93	1,83	1,95		
	EF1 (Money Market Funds)	1,79	1,83	1,87	1,92	1,95	1,78		
	EF2 (Finance companies)	0,97	0,97	0,98	0,97	0,97	0,95		
	EF5 (SFV's)	0,92	0,95	0,95	0,96	0,96	0,96		
Leverage 1 (L1) **[6]**	EF1 (Other non-Equity Funds)	1,04	1,04	1,07	1,05	1,04	1,03		1= no leverage ; the higher, the more leverage
	EF1 (Fixed Income Funds)	1,01	1,01	1,01	1,01	1,01	1,01		
	EF1 (Mixed Funds)	1,01	1,00	1,01	1,01	1,01	1,00		
	EF1 (Money Market Funds)	1,03	1,00	1,02	1,03	1,06	1,06		
	EF2 (Finance companies)	2,08	1,96	1,98	1,85	1,87	1,92		
	EF5 (SFV's)	1574,73	1365,55	2168,23	2442,46	2445,67	2613,07		

Notes:

[1] Credit assets/assets under management or total financial assets. Credit assets is the amount of debt securities, loans and cash on deposit. **[2]** Loans/assets under management or total financial assets. **[3]** (Long-term assets of > 12 months – long-term liabilities of > 12 months – equity)/assets under management or total financial assets. **[4]** (Short-term liabilities of ≤ 12 months + redeemable equity of ≤ 12 months)/short-term assets of ≤ 12months. **[5]** (Assets under management or total financial assets – liquid assets (narrow) + short-term liabilities ≤ 30 days + redeemable equity ≤ 30 days)/assets under management or total financial assets. Liquid assets in a narrow definition include cash and cash equivalents. **[6]** For EF 1: assets under management/net asset value. For other EF: total financial assets/equity.

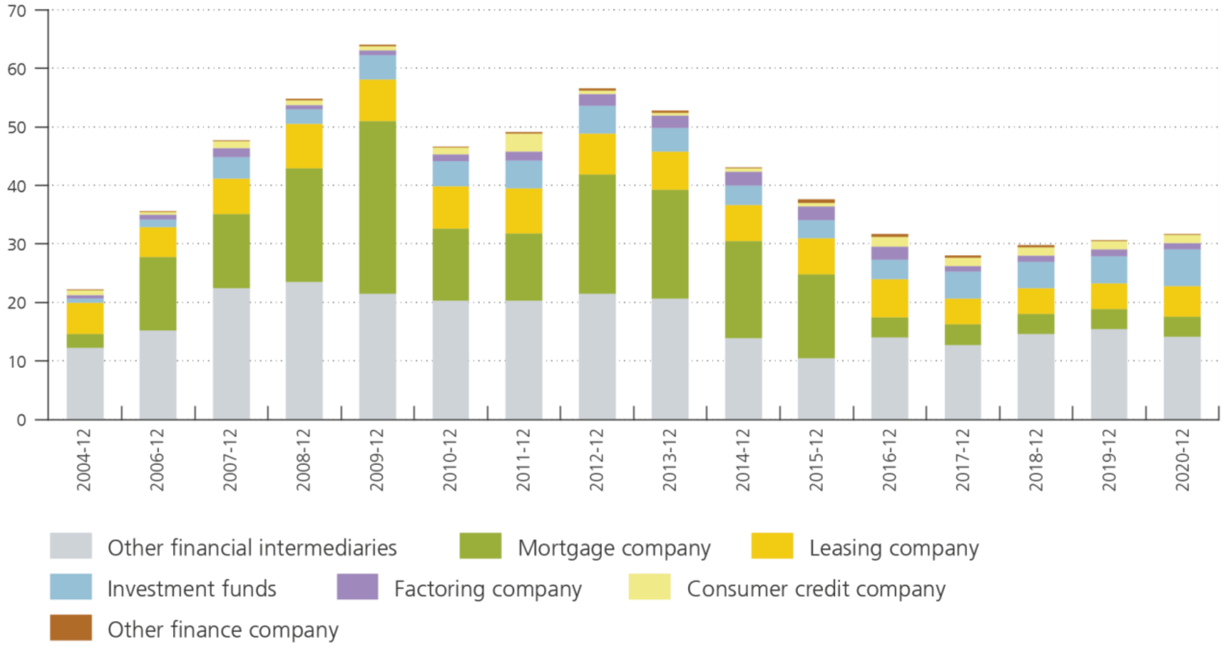
Chart 4.1: Interconnectedness mapping – starting point [1] (end 2018, in % of the originating sectors' consolidated assets [2])



Sources: FSB, NBB.

Notes: **[1]** NBFI = BE: S123 + S124 excluding equity funds + S125-1 excluding retained securitisations + S125-4 + S125-9+EMU: S123 + S124 (total) + S125 (total). **[2]** Data for households are expressed in % of total unconsolidated assets. ICPF = Insurance companies and pension funds. NFCs = Non-financial corporations

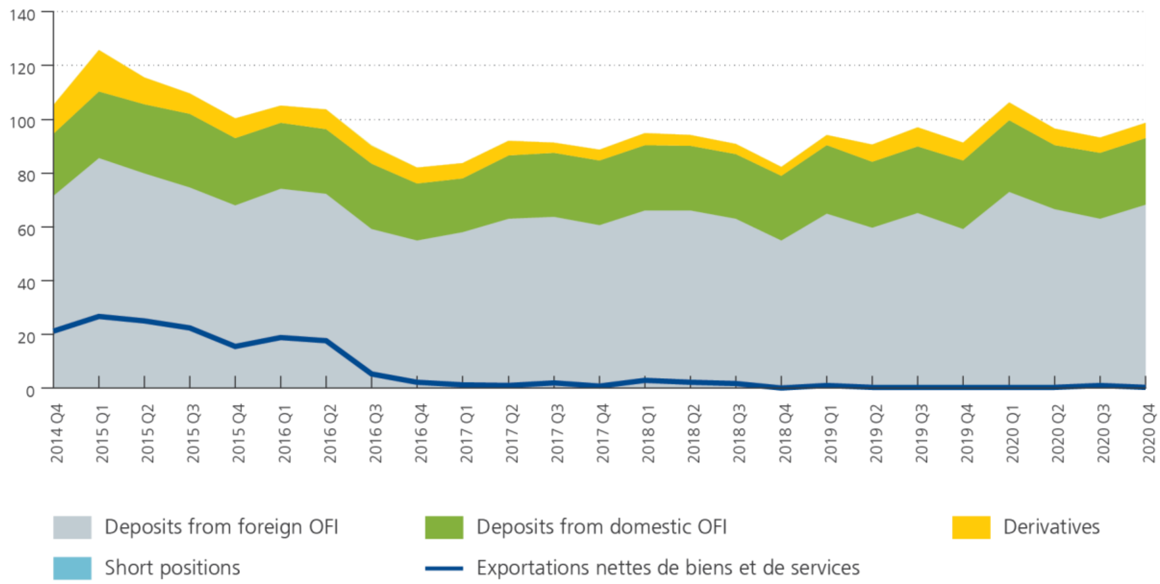
__Chart 4.2: Belgian banks' loans to other financial intermediaries__[1] (€ billion, unconsolidated data)



Sources: NBB, Central Corporate Credit Register.

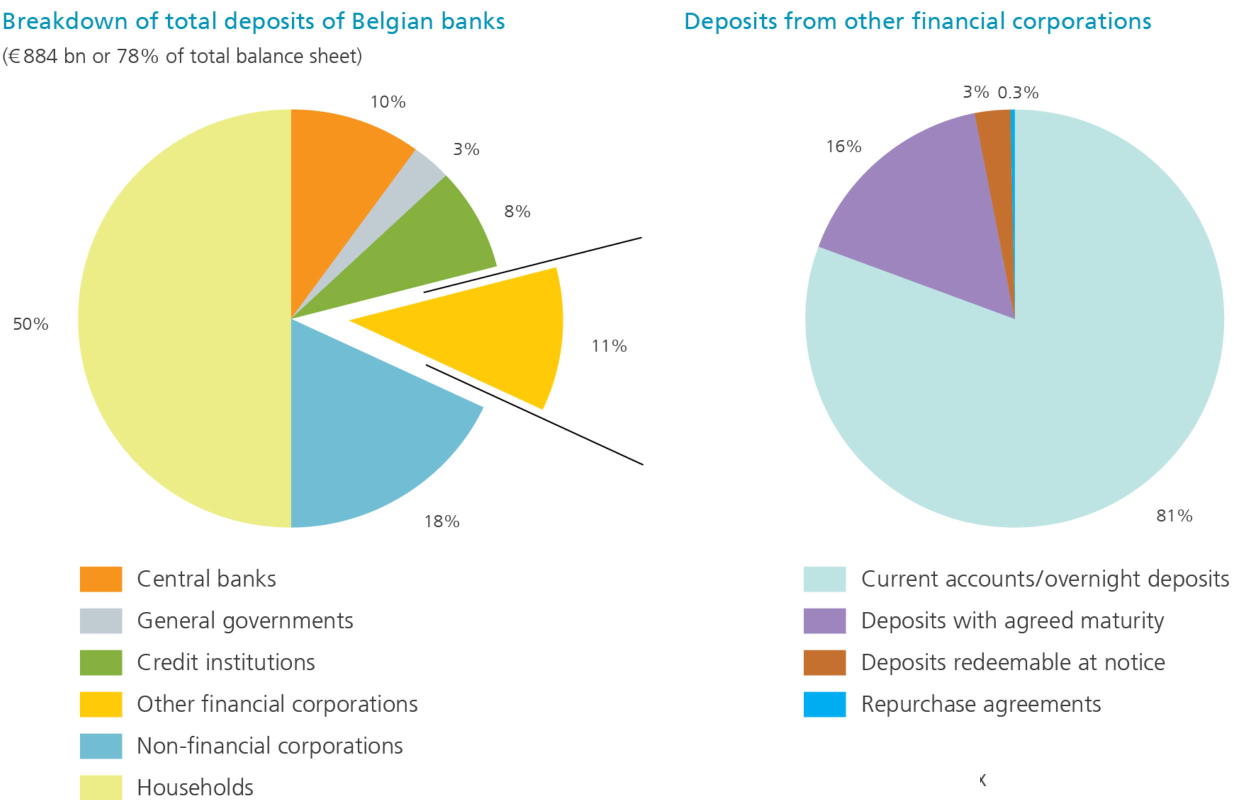
__Notes:__ **[1]** Excluding central banks, deposit-taking corporations, holding companies and investment companies which fall outside of the scope of the NBFI sector.

__Chart 4.3: Belgian banks' funding received from other financial institutions__ (€ billion, consolidated data)



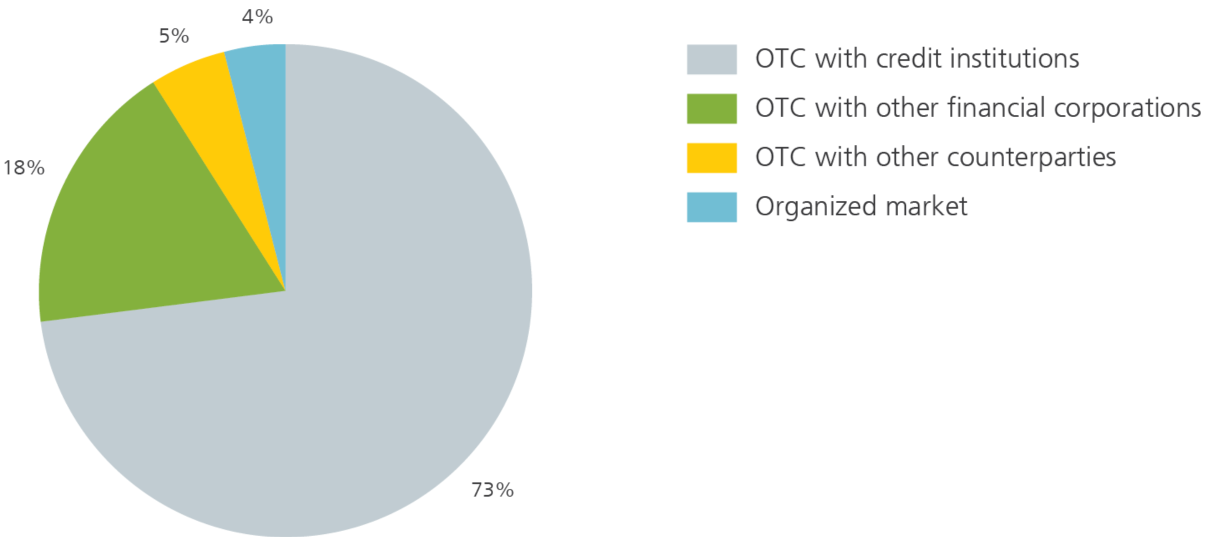
Source: NBB, FINREP.

***Chart 4.4: Breakdown of total deposits of Belgian banks** (end 2020, consolidated data)*



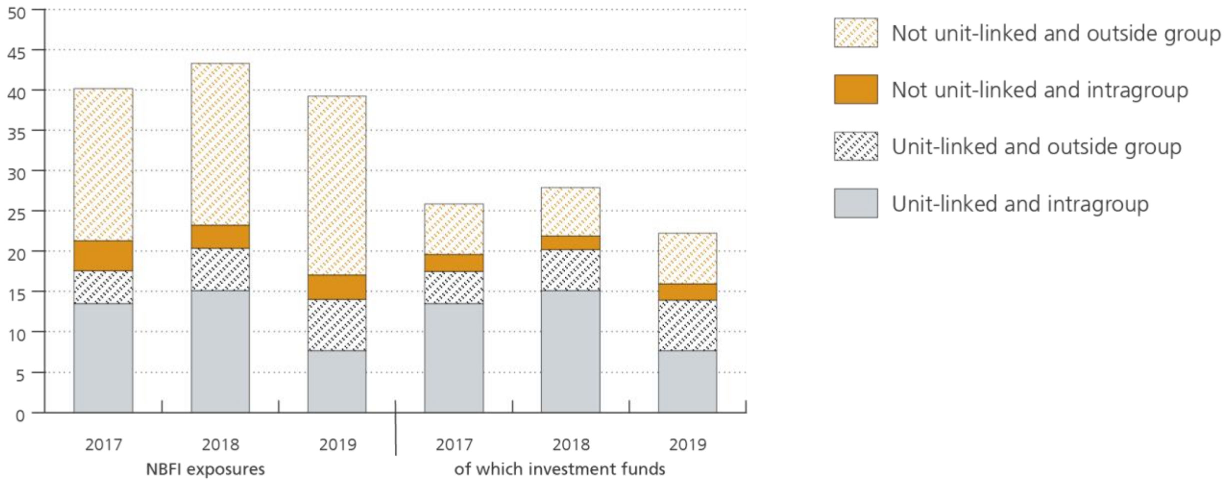
Source: NBB, FINREP.

***Chart 4.5: Breakdown of the notional amount of the derivative portfolio of Belgian banks** (end 2020)*



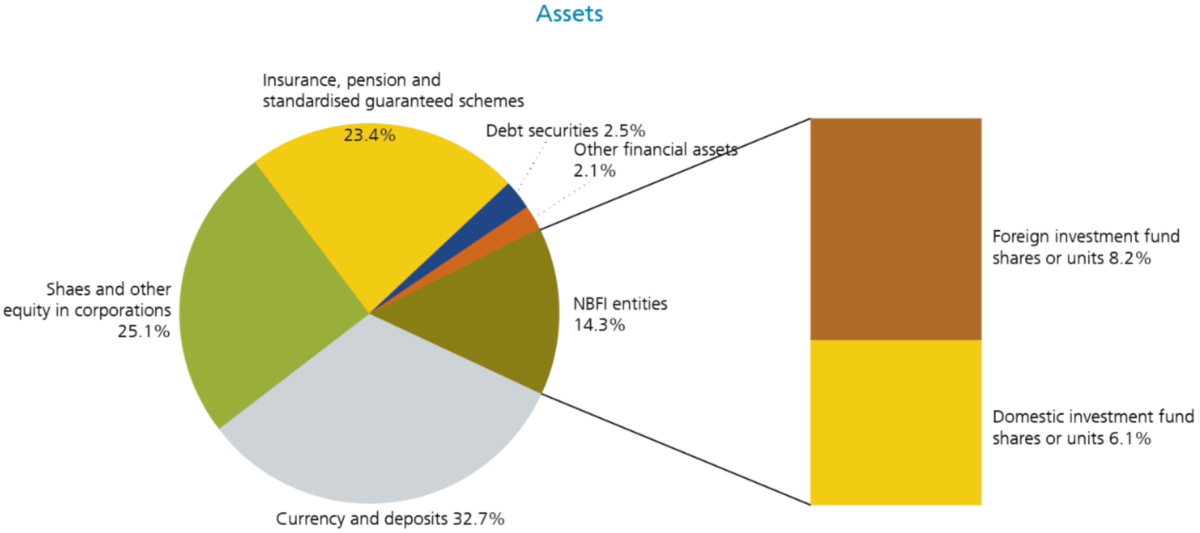
Source: NBB, FINREP.

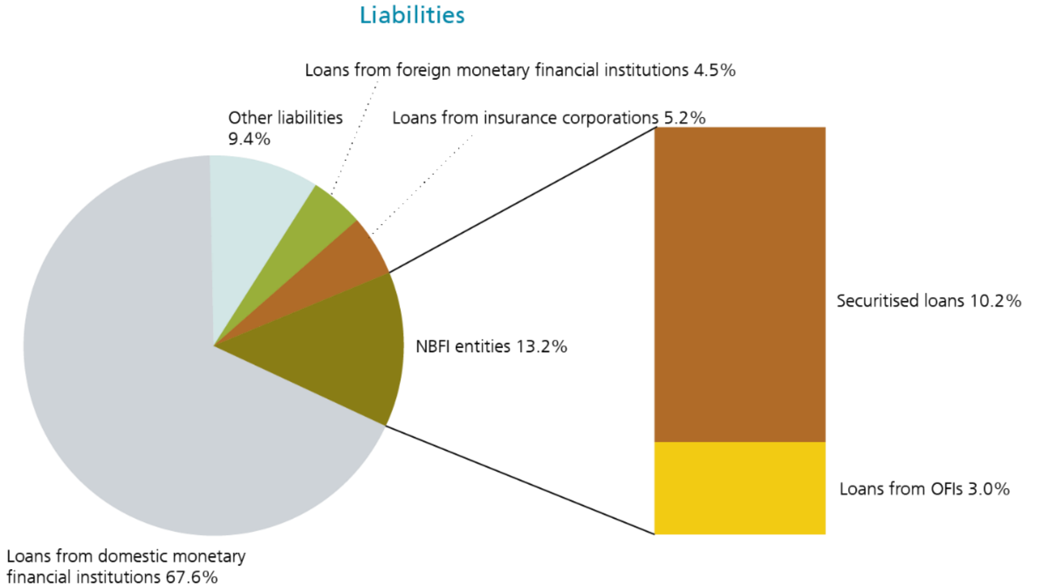
***Chart 4.6: Insurance sector's NBFI exposures** (€ billion)*



Source: NBB, Solvency II reporting.

__Chart 4.7: Breakdown of households' financial assets and liabilities__ (% of total, end September 2020)

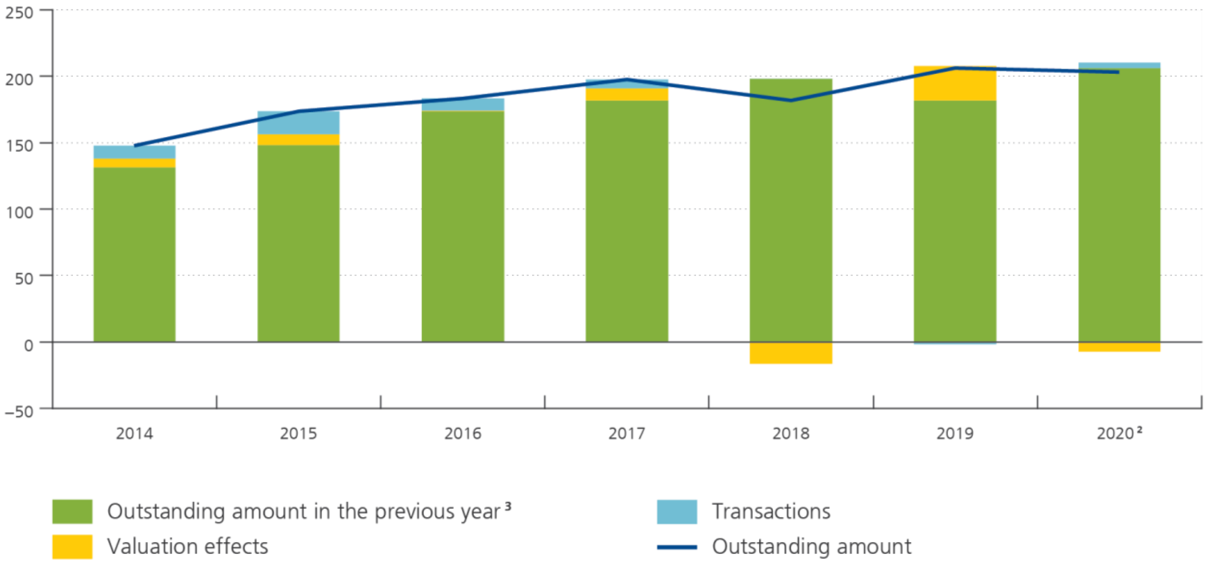




Source: NBB (Financial accounts statistics).

__Notes:__ Shares of equity investment funds are excluded in the investment fund holdings shown in the chart (in line with the NFBI narrow measure).

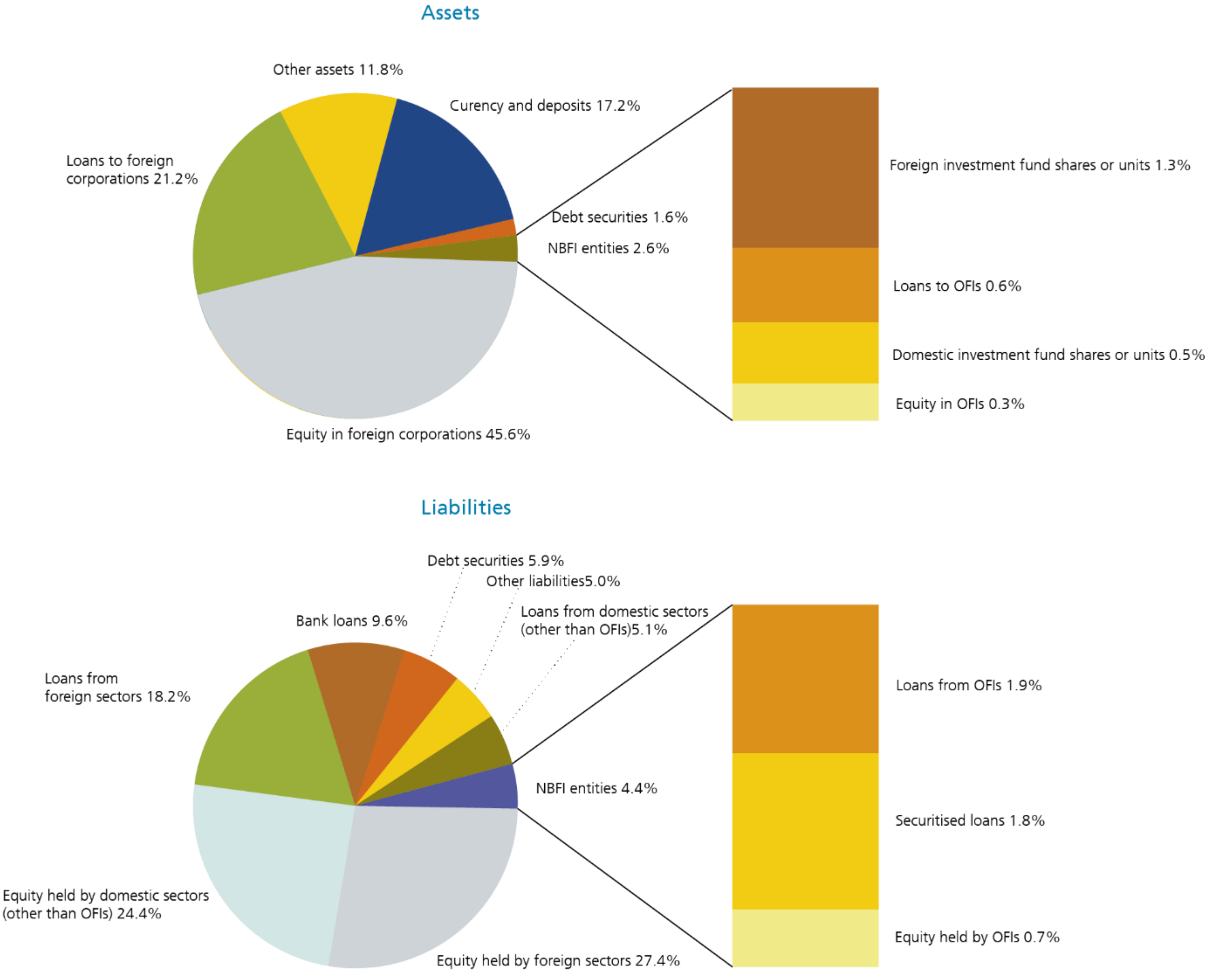
Chart 4.8: Households' holdings of domestic and foreign investment fund shares or units [1]
(outstanding amount at the end of the year)



Source: NBB (financial accounts statistics).

Notes: **[1]** Excluding equity investment funds. **[2]** Data for September 2020. **[3]** Includes also the other changes in volume since the previous year.

Chart 4.9: Breakdown of non-financial corporations' financial assets and liabilities *(% of total, end September 2020)*



Source: NBB (Financial accounts statistics).

Notes: Shares of equity investment funds are excluded in the investment fund holdings shown in the chart (in line with the NFBI narrow measure).