

Update on Asset management and Shadow banking in Belgium

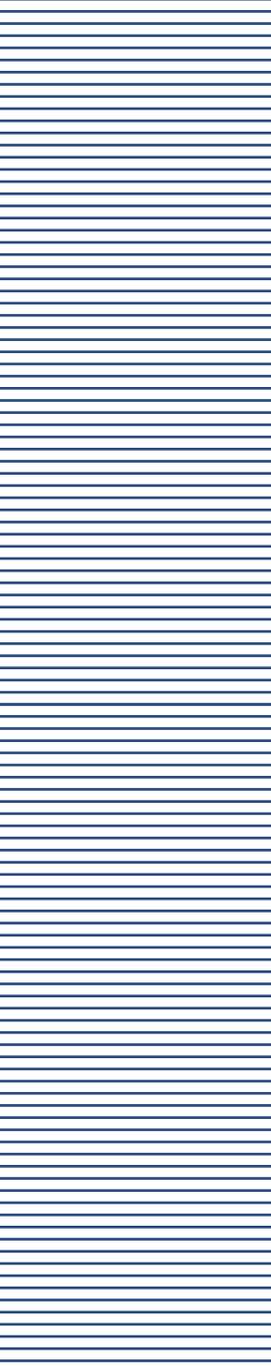
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I. Introduction

In 2017, the FSMA and NBB submitted to the Belgian Minister of Finance a joint report on asset management and shadow banking, following up on a recommendation included in the report of the High Level Expert Group (HLEG) on the Future of the Belgian Financial Sector, published on 12 January 2016. This report was subsequently published on the websites of the NBB and FSMA.¹

This first — and extensive — report of 2017 analysed and documented in detail the following aspects related to asset management and shadow banking:

- Overview of the Belgian asset management sector (Chapter II), 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;
- Overview of the Belgian the shadow bank sector (Chapter III) according to two delineation methodologies (FSB and EBA definition), together with an international comparison;
- Description of the NBB-FSMA monitoring framework for the — partly overlapping — Belgian asset management and shadow bank sectors and for the interconnectedness between Belgian residents and shadow banks worldwide (Chapter IV);
- Review of the relevant national and international regulations and ongoing policy work (Chapter V).

Shadow banking and asset management



While the report did not raise major concerns as regards potential systemic risks associated with shadow bank entities and asset management activities in Belgium, it also stressed the need for a close monitoring of developments in both sectors. The statistical annex to this new, but shorter, report includes an update — in the form of tables and charts — of all the key figures that were used in the report of 2017. It provides the quantitative background data for the qualitative analysis that focuses on the most recent developments in the Belgian asset management and shadow bank sectors in the light of the main conclusions and policy recommendations identified in last year's report. The chapters of this report are structured similar to the four chapters of last year's report, starting with an update on the Belgian asset management (Chapter II) and shadow banking (Chapter III) sectors and followed by the monitoring (Chapter IV) and regulatory and policy frameworks (Chapter V). A final section contains the main conclusions and policy findings and revisits the five recommendations included in the 2017 report.

¹ See <https://www.fsma.be/en/news/report-asset-management-and-shadow-banking> and <https://www.nbb.be/en/articles/press-release-report-asset-management-and-shadow-banking>

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 2017. 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 funds².

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 at the end of 2016 and 2017, as discussed in the following sections.

2.1 Belgian investment funds

The net asset value of Belgian investment funds increased from € 144 billion at the end of 2016 to € 175 billion at the end of 2017. The various factors driving this significant increase — in addition to changes in market value — are detailed in the two sections below, starting with the public open-ended UCITS and AIFs.

2.1.1. Belgian public open-ended investment funds

At the end of 2017, public open-ended investment funds, i.e. UCITS and public open-ended AIFs, represented € 155 billion or about 89% of the net asset value of the Belgian investment fund sector (Table 2.2)³, up from € 127 billion (88 %) one year before. UCITS represent 74% of the segment of Belgian public open-ended investment funds, compared to 68% at the end of 2016. The increase in the relative importance of UCITS has been accompanied by an increase in the number of UCITS (sub-) funds as well as an expansion of the UCITS' total net assets (from € 81 billion to € 114 billion), while the number of public open-ended (sub-)funds that qualify as AIFs, as well as their total net assets, has decreased (from € 46 billion to € 41 billion).

There are a number of explanations for the growing size of the segment of the Belgian UCITS, both in relative and in absolute terms. First, a large part of the sub-funds of Belgian AIFs are ‘structured’ (sub-)funds⁴, 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 AIFs⁵. During 2017 net assets of AIF structured funds have decreased from € 6.1 billion to € 3.7 billion euro, while net assets of UCITS structured funds have remained relatively stable at € 4.5 billion (Table 2.3).

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 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.

⁴ 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 2017 report on asset management and shadow banking for more information on structured products.

⁵ 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.

Second, a number of Belgian public open-ended investment funds initially established as AIFs, have requested an authorisation as UCITS during the course of 2017. 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 recent conversion of some investment funds to UCITS is likely to be driven, at least partially, by new rules with regard to the provision of investment services under Mifid II⁶, which apply from 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”)⁷.

Third, cross-border mergers of UCITS sub-funds have significantly contributed to the overall growth of the Belgian UCITS segment during the second half of 2017. While the first two explanations of the growth of the UCITS segment may be considered to be part of a longer term trend, there is currently no reason to assume that the latter cause is structural in nature.

Pension savings funds remain the largest category of public open-ended AIFs with close to € 20 billion (48 %) of net assets (Table 2.3). The UCITS segment is dominated by mixed funds (€ 50 billion or 44%) which often invest indirectly into several asset classes by investing in units of other investment funds (€ 40 billion or 35%). Equity funds are the second largest category within the UCITS segment, with net assets amounting to € 43 billion (38%). Contrary to mixed funds, equity funds generally invest directly in stocks. Bond funds are the third largest category within the UCITS segment. Their net assets amount to € 14 billion euro (13%), about half of which is invested indirectly through fund-of-fund structures. All in all, fund of funds or feeder funds account for more than one third of the gross net asset value of the Belgian public open-ended investment funds (€ 61 billion out of € 155 billion).

2.1.2. Other AIFs

The non-public AIFs (€ 19.5 billion at the end of 2017) continue to be dominated by the institutional open-ended AIFs, with 165 sub-funds registered and an estimated size of their net assets of € 17.5 billion (lower bound)⁸, up from around € 16 billion at the end of 2016 (Table 2.2). Another important specific category of non-public AIFs are the private privaks/pricafs (€ 0.4 billion), which have grown to 52 privaks/pricafs registered at the end of 2017 (up from 41 registered at the end of 2016). In addition, after the legislative framework entered into force at the end of 2016, 10 specialised real estate funds were registered by the FPS Finance during the course of 2017.

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 at the end of 2017,

⁶ 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.

⁷ 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.

⁸ 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.

while currently there are no public real estate funds anymore (and neither are there institutional real estate funds).

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

A final category of Belgian AIFs are those for which the manager has not opted for the AIF to be registered or authorised as one of the above specific regulated structures. Alternative investment fund managers (AIFMs) registered or authorised by the FSMA have reported information to the FSMA on 40 of those AIFs, with net assets of €1.5 billion (€ 1.0 billion end 2016).

2.2 Belgian asset managers

The number of Belgian asset managers (UCITS management companies and authorised AIFMs) has remained stable during 2017 (Table 2.4), with seven of the nine authorised Belgian asset managers holding a double authorisation. The total assets under management (AuM) of the nine Belgian asset managers amounted to € 292 billion (€ 248 billion at the end of 2016), of which € 181 billion were in the form of collective management and € 111 billion in the form of discretionary management, while the assets for which they provide investment advice amounted to € 2 billion.

2.3 Foreign investment funds distributed in Belgium

Investment funds from other Member States of the 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 2017 3,992 UCITS sub-funds from other Member States of the EEA were notified and subsequently registered by the FSMA. This figure represents a limited increase compared to 2016 (Table 2.5). Because the supervisor of the home country is the competent authority for these funds no exact statistics on the size of these foreign UCITS' net assets are available.

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 the activities of these public open-ended AIFs from other Member States of the EEA. Four open-ended public AIFs from other Member States of the EEA were registered at the end of 2017 (of which 17 sub-funds were registered). Their net assets amounted to about € 5.0 billion⁹. As shown in Table 2.5, compared to 2016, the net assets are stable but the number of registered sub-funds has halved.

Although the net asset value (NAV) of foreign investment funds distributed in Belgium is not as such available, the securities holdings statistics allow to identify the amount of foreign investment funds *held by Belgian residents* (Table 2.6, providing a breakdown by holding sector and by issuing country). According to this data source, investments by Belgians in foreign funds amounted to € 214 billion at the end of June 2017 (versus € 189 billion at the end of June 2016), of which € 114 billion (€ 100 billion) is estimated to be held by households. The major share of these foreign investment funds held by Belgian residents are Luxembourg funds (€ 164 billion), followed by funds from France (€ 22 billion), Ireland (€ 13 billion) and Germany (€ 11 billion).

⁹ 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.

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 the course of 2017, Belgian banks earned fee and commission income of around € 2.4 billion on their asset management activities, which is an increase of almost € 400 million relative to the 2016 level (Table 2.7). This is the result of banks' commercial efforts to develop their asset management activities in order to mitigate the pressure on their net interest income in the low interest rate environment. The amount of client assets involved in these activities rose by € 51 billion to € 582 billion end 2017.

Around two-thirds of the latter amount relates to assets managed within Belgian banks (€ 365 billion). 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 overlap¹⁰ with the AuM of Belgian asset managers as mentioned in section 2.2 (Chart 2.5). 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 € 365 billion can be broken down into € 214 billion of assets under collective management and € 151 billion of assets under discretionary management. Both amounts have increased since end 2016, not only because banks have succeeded in selling more investment products, but also because of valuation effects given the favourable financial market conditions in 2017. The same is true for the amount of collective investment products distributed by Belgian banks but issued by entities outside of their consolidation scope which increased from € 195 billion end 2016 to € 217 billion end 2017.

Belgian banks also earned higher fee and commission income on custodian and central administrative services in 2017. Jointly, the income earned on these services increased by almost € 100 million relative to 2016. The assets involved in these services have also risen (to € 4,395 billion for custody assets and € 174 billion for assets in investment funds for which Belgian banks provide administrative services).

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 2.6 and Tables 2.8 and 2.9). Insurers might 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. At the end of 2017, Belgian insurers' technical provisions for class 23 contracts amounted to € 35.5 billion (€ 31.4 billion in 2016), covered

¹⁰ Based on the cross-verification of different data sources, the overlap is estimated at maximum € 152 billion at the end of 2017.

almost entirely by units of investment funds (€ 31.4 billion) and a small amount of (mainly term) deposits (€ 2.7 billion). Class 23 premiums reached € 3.2 billion in 2017 (€ 2.2 billion in 2016). For some years now, life insurers have tried to direct their policyholders and new production towards class 23 products, also due to the difficult market conditions for the more traditional products offering guaranteed rates of return.

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 and non-life insurance products (other than class 23) or as free investment assets. At the end of 2017, these investments amounted to € 14.0 billion, compared to € 14.2 billion in 2016. Broken down by type of fund, the larger share was located in debt funds (€ 5.3 billion), money-market funds (€ 2.1 billion), equity funds (€ 1.8 billion) and real estate funds (€ 1.3 billion). Around € 5 billion of these funds were issued in Luxembourg, € 5 billion in France, € 2 billion in Belgium and € 1 billion each in the Netherlands and Ireland. Their custodian was mainly located in Belgium (€ 10 billion) and Luxembourg (€ 1.4 billion).

2.6 Belgian institutions for occupational retirement provision and asset management activities

At the end of 2016 there were 199 Belgian institutions for occupational retirement provision (or “pension funds”) authorised, accounting for about € 30 billion total assets (Table 2.10). Belgian pension funds had invested about 70% of those assets (€ 21 billion) in investment funds.

III. Overview of the Belgian shadow banking sector

3.1 Delineation of the Belgian shadow banking sector

The FSB defines shadow banking 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 the shadow banking sector escapes from regulatory requirements, rather that the sector is regulated in a different manner than ‘regular’ banks.

The shadow banking sector as such is not defined in the financial accounts, hence its approximation by adding the financial assets of several entities. Different definitions for the Belgian shadow banking sector can be used and this report focuses on the following two main definitions provided by the EBA and FSB: € 17.5 billion for the EBA framework and € 147 billion according to the FSB framework.

The delineation of the Belgian shadow bank sector starts from the very broad FSB-defined aggregate called the monitoring universe of non-bank financial intermediation (MUNFI), which is the sum of financial assets of non-bank financial entities, pension funds and insurance companies and is calculated using flow of funds data in financial accounts. The Belgian MUNFI amounted to € 1,212 billion at the end of 2017, compared to € 987 billion of banking sector assets (Chart 3.1). However, this MUNFI consists of a wide variety of financial entities and not all of them should be considered as posing shadow bank 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 group. These bank-like risks are: maturity and liquidity transformation, leverage and credit risk transfer. This narrowing down is interpreted in different ways and leads to a diverging magnitude of the shadow banking sector.

The narrowing down of the Belgian shadow banking sector according to the framework developed by the FSB is based on economic functions (EF). If non-bank financial entities and activities are assessed by authorities to be involved in shadow banking 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 shadow bank aggregate). **The Belgian narrow shadow banking sector, delineated according to this FSB methodology, amounted to € 147 billion at the end of 2017** (versus € 128 billion at the end of 2016), representing 34 % of GDP or 15 % of the size of the Belgian banking sector (Charts 3.2 and 3.3). The bulk of the Belgian narrow shadow banking sector still consists of investment funds, which are classified under economic function 1 (EF1). EF1 includes the Belgian money market and non-equity investment funds (€ 132 billion, up from € 111 billion at the end of 2016), which are almost all open-ended and hence susceptible to run risk. This increase of slightly more than € 20 billion reflects around € 6 billion net new inflows, the remainder being mainly due to the above-mentioned cross-border mergers of UCITs sub-funds (see section 2.1.1) and positive valuation effects. The second category of shadow banks relates to EF2 — loan provision that is dependent on short-term funding — and is done by financial intermediaries such as leasing and factoring companies, lenders in consumer and mortgage credit and other entities that are not consolidated in a banking/insurance group (€ 8 versus € 7 billion at the end of 2016). The third and last category of shadow banks is categorised under EF5 and consists of securitisation activities by financial vehicle corporations that are not retained on the balance sheets of Belgian banks (€ 7 versus € 10 billion at the end of 2016).

Under the European Banking Authority (EBA) framework, the Belgian shadow banking sector amounted to € 17.5 billion at the end of 2017 (versus € 19.4 billion at the end of 2016), as the Belgian asset management entities included in the shadow banking sector (the EF1 above) only take into account the Belgian money market funds (€ 2.5 billion) and AIFs with a leverage that exceeded 300% or that were granting/purchasing loans (€ 0.02 billion).

3.2 International comparison

The FSB conducts annual monitoring exercises to assess global trends and risks in the shadow banking and publishes the results in the Global Shadow Banking Monitoring Report¹¹. Chart 3.4 uses these data to compare the size of the Belgian shadow bank sector with those of other euro area and non-euro area countries. The results of the last monitoring exercise (for the situation as at the end of 2016) confirm in this connection that the size of the Belgian shadow bank sector (measured in % of GDP) remains lower than in France, Germany and the Netherlands. The last FSB monitoring exercise also covered Luxembourg for the first time, which, together with Ireland, shows a very large shadow bank sector due to its key role in the European investment fund market.

IV. Monitoring framework

Chapter 4 of last year's report used the mapping and sizing of the Belgian shadow bank 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 shadow banking 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.

¹¹ The last available FSB report using end 2016 data was published on 5 March 2018 and is available at <http://www.fsb.org/2018/03/global-shadow-banking-monitoring-report-2017/>

For the part of the shadow banking 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 is already partly addressed by legislation in force or in the pipeline as regards asset diversification and liquidity management tools.

Apart from the direct risks, the asset management sector and the shadow banking 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 2017 report, a number of 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 shadow bank sectors.

First, in an effort to close the data gaps on shadow banking entities and activities (in particular investment funds) identified by the FSB and the ESRB, new and improved Belgian reporting requirements for certain public investment funds have entered into force on 1 October 2017 (see section 6.1 for further developments in this connection).

Second, over the last few years, the NBB has done an effort to close important data gaps in the "other financial intermediaries" sector (OFIs) by (1) looking at the activities of the entities involved and hence excluding those entities from the shadow banking sector that do not pose shadow bank-like risks and (2) by distinguishing entities within the consolidation perimeter of banks and insurance companies and excluding them from the shadow banking sector.

The NBB is actively involved in the ongoing work at ECB/ESRB level to extend this approach to other countries, which would allow a better understanding of the shadow bank risks of approximately 47% of the broad measure of shadow banking assets currently used at the euro area and EU level. On an international level, one of the recommendations of the G20 Data Gaps Initiative is aimed at better capturing the shadow banking sector within the financial statistics.

4.2 Risk assessment of the Belgian shadow banking sector

Table 4.1 provides an update of a number of 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 shadow bank entities, as classified according to the FSB economic functions. Compared to last year's report, the risk metrics are now provided for three different types of investment funds under EF1 (bond funds, mixed funds and other non-equity funds), which allows a more granular assessment of the metrics than the previous simple distinction between money market and non-money market funds.

The risk metrics calculated for the Belgian investment funds (excluding money market and equity funds) for EF1 confirm that liquidity transformation remains the most important risk. It is essentially a redemption risk, linked to the fact that the liabilities of the funds are mostly composed of units redeemable on a daily basis that 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.

For the entities falling under EF2 and EF5, the risk metrics reveal that their 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 shadow banking entities worldwide

Chart 4.1 provides a first broad — though incomplete — overview of the links between Belgian residents and potential shadow banks worldwide on the basis of financial accounts data. 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 shadow banks residing in EMU countries (financial accounts data do not allow to capture the shadow bank sub-segment of the OFI sector outside the EMU 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, the report of 2017 was nevertheless able to distil an informed assessment of the orders of magnitude of the size of Belgian residents’ links with shadow banks 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 sub-sections below reconfirms the main findings as regards this interconnectedness: while links with the OFI-sector can be important in some cases, the interconnectedness with “real shadow banks” 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 bank system to shadow bank entities according to the financial accounts data (€ 72 billion) or to OFIs using the consolidated supervisory data (€ 48 billion or 5% of the total assets) remained, at the end of 2017, close to the levels observed in the NBB-FSMA report of last year, including as regards its composition (share of loans and debt securities).

More than half of the € 48 billion FINREP-exposure is constituted of loans and advances (€ 28 billion), representing less than 4% of the total loan portfolio of Belgian banks. These loans to other financial institutions are to a certain extent 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 € 13 billion of debt securities issued by other financial institutions. These debt securities represent 10 % of the total bond portfolio of Belgian banks and the bulk of these exposures are toward foreign counterparties (resp. € 3.0, 1.8, 1.6, 1.4 for ES, US, FR and NL OFIs). Some of these securities are securitisations or structured products issued by financial vehicle corporations (FVCs).

When intra-conglomerate transactions are included in the analysis, as in the case of an analysis based on the financial accounts data, Belgian banks’ loans to shadow bank entities are higher than in FINREP. The data from the financial accounts reconfirm in this way that part of banks’ loans to domestic and foreign other financial intermediaries are in fact intra-group or intra-conglomerate transactions (e.g. a bank loan to the leasing company that is a subsidiary of the bank itself or of the financial group to

which both belong). On the basis of the financial accounts data, Belgian banks' loans to the shadow bank sector are estimated at € 51 billion and most of these loans are claims on domestic OFIs. The central corporate credit register (CCCR) allows a further detail on Belgian banks' portfolio of loans to these domestic non-bank financial intermediaries (Chart 4.2) and shows a stock of loans to various types of OFIs — such as leasing, mortgage, consumer credit, private equity and trade and export finance companies — which nevertheless continued its downward trend observed since 2012, reaching less than € 30 billion euro in total in 2017.

As regards the liabilities side, the available data in the financial accounts (Chart 4.1) and the consolidated supervisory data (Chart 4.3) show a sharp fall in repo-related funding and a more moderate decline in overall funding from OFIs in recent years. Yet, with € 64 billion at the end of 2017 (of which more than € 60 billion in deposits), funding from OFIs — including non-shadow banks, such as insurance companies or other financial intermediaries that should be excluded from the shadow bank sector — remains an important source of funding (6 % 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 remained stable around € 6 billion in 2017.

4.3.2. Insurance companies and pension funds

In 2017, according to financial accounts data, shadow bank exposures amounted to respectively € 17 billion for the pension funds sector — mainly in the form of shares in investment funds, not including equity funds — and € 55 billion for the insurance sector.

According to Solvency II prudential data (Chart 4.6), the exposure of insurance companies towards shadow banking amounted to € 43.7 billion in 2017 (or 13.6 % of total assets), compared with € 42.1 billion in 2016 (12.9 % of total assets). As explained before, this increase is mainly due to the rising premium amounts related to class 23 that are collected by insurance companies and which are in turn mainly invested in UCIs. Out of the € 43.7 billion of shadow bank exposures, more than € 18 billion correspond to assets covering class 23 contracts.

Investment funds account for a significant share of the shadow bank exposures and amounted to € 26.7 billion in 2017 (these assets being held as counterpart for unit-linked 23 contracts or other technical insurance provisions), while the remaining € 17 billion of shadow bank exposures mainly represent holdings of debt securities (corporate bonds, including bonds guaranteed by international institutions like the European Investment Bank) and a small amount of equity.

Finally, data show that a large share of the assets corresponding to shadow bank exposures are actually assets that are managed within the financial group to which the insurance company belongs (e.g. an insurer outsourcing the unit-linked fund management to the asset manager of the group). This proportion is however higher for assets covering unit-linked contracts (€ 8.9 billion managed intragroup out of € 18.1 billion) than for other shadow bank exposures not related to unit-linked contracts (€ 3.7 billion out of € 25.6 billion).

4.3.3. Households

The 2017 report documented the importance of domestic and foreign investment funds in the total financial assets held by Belgian households, in particular the wealthiest among them (Charts 4.7 and 4.9). Since the end of 2016, the outstanding amount of their participations in investment funds rose by 7.6%, partly due to valuation effects, reaching € 195 billion, or 14.4% of their total financial assets, at the end of 2017. That amount consists of € 89.4 billion of participations in domestic funds and € 105.5 billion in foreign funds.

Securitised loans and loans from OFIs still account for a sizeable share of the household sector's debt, with 16.2% and 3.7%, respectively (Charts 4.7 and 4.8). However, as highlighted in last year's report, 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. The major players in that sector are in fact subsidiaries from two of the main resident banks, namely Alpha credit, which is part of the BNP Paribas Group, and Record Credit Services, a subsidiary of ING. In 2016, these two corporations accounted for respectively 60% and 15%, of the total assets held by consumer credit institutions operating in Belgium.

4.3.4. Non-financial corporations

The links between non-financial corporations (NFCs) and the shadow banking sector remain tenuous (Chart 4.10). Participations in domestic and foreign investment funds represented only 1.4% of their total financial assets at the end of 2017, whilst equity and intragroup loans to corporations included among the OFIs accounted for 0.7%. These proportions did not change significantly compared to the situation observed at the end of 2016. The same holds true for NFCs' liabilities, where securitised loans account for 1.4% of the outstanding amount. Constituting 1.5% of that same total, loans received from OFIs consist mainly of leasing and factoring, a large part of which still originates from subsidiaries of the four major credit institutions (Charts 4.11 and 4.12). The share of equity investment from private equity companies and similar enterprises in NFCs liabilities has remained stable as well (0.6% at the end of 2017).

V. Current regulation and ongoing policy work

This section provides an update of recent developments in the regulation as regards shadow bank 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 2017 FSMA-NBB report on asset management and shadow banking. Shadow banking 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

The **EU Money Market Funds Regulation**¹² was adopted on 14 June 2017 with an entry into force on 21 July 2018. The Regulation aims to ensure that uniform prudential, governance and transparency requirements apply to Money Market Funds (MMFs) throughout the EU. It distinguishes between three categories of MMFs: public debt CNAV, VNAV and low volatility NAV (LVNAV) MMFs. Standard VNAV MMFs continue to use variable net asset value (VNAV), while only short term MMFs investing in certain public debt instruments are allowed to use a constant net asset value (CNAV). The Regulation also creates a new category called low volatility net asset value (LVNAV) meant to be more

¹² Regulation (EU) 2017/1131 of the European Parliament and of the Council of 14 June 2017 on money market funds

resilient to runs by investors. The MMF Regulation makes tools such as liquidity fees, redemption gates and suspension of redemptions available to the managers of public debt CNAV and LVNAV MMFs in order to address liquidity issues and redemption pressures. External support, including sponsor support, of MMFs is explicitly banned, in view of limiting the contagion risk between the MMF sector and the rest of the financial system. The Regulation also strengthens the requirements on eligible assets, investment policy diversification and concentration rules, liquidity, credit assessment and transparency. Finally, MMFs will be obliged to conduct stress tests regularly (at least bi-annually), on the basis of ESMA Guidelines. Potential vulnerabilities will be reported to NCAs and ESMA.

The **Guidelines on stress tests scenarios under Article 28 of the MMF Regulation** were published on 21 March 2018 by the European Securities and Markets Authority (ESMA). The guidelines, which will be updated at least every year taking into account the latest market developments, establish common reference parameters of the stress test scenarios to be included in the stress tests taking into account the following factors specified in Articles 28(1) of the MMF Regulation:

- hypothetical changes in the level of liquidity of the assets held in the portfolio of the MMF;
- hypothetical changes in the level of credit risk of the assets held in the portfolio of the MMF, including credit events and rating events;
- hypothetical movements of the interest rates and exchange rates;
- hypothetical levels of redemption;
- hypothetical widening or narrowing of spreads among indexes to which interest rates of portfolio securities are tied;
- hypothetical macro systemic shocks affecting the economy as a whole.

Following its publication on 10 November 2017, the **EU Regulation¹³ on European Venture Capital Funds (EuVECA) and European Social Entrepreneurship Funds (EuSEFs)** became applicable as of 1 March 2018. The amendments to the existing Regulations are a result of the EU Commission's review process which identified a lack of success of the two Regulations, especially that of the EuSEF regulation. The main obstacles identified by the EU Commission were: (i) the existence of certain limitations imposed on managers (ii) the scope of eligible assets and (iii) the amount of costs/regulatory fees. The updated Regulation aims to:

- widen the range of managers eligible to market and manage EuVECA and EuSEF funds to include also larger fund managers. Fund managers that are authorised under AIFMD are now entitled to use the "EuVECA" and "EuSEF" designations;
- expand the ability of EuVECA funds to invest in unlisted companies with up to 499 employees or SMEs on an SME growth market;
- simplify the registration process;
- determine the minimum capital necessary to become a manager; and
- ensure that ESMA's central database includes information concerning all EuVECA and EuSEF managers and their funds.

On 8 June 2017, the **EU Commission** published the **Mid-term Review of the Capital Markets Union (CMU) Action Plan**. The Capital Markets Union aims to strengthen capital markets and investment in the EU by (i) providing business with a greater choice of funding at lower costs; (ii) offering new opportunities for savers and investors; (iii) making the financial system more stable and resilient. In the mid-term review the EU Commission has underlined the measures already delivered in the

¹³ Regulation (EU) 2017/1991 of the European Parliament and of the Council of 25 October 2017 amending regulations (EU) No 345/2013 on European Venture Capital Funds and (EU) No 346/2013 on European Social Entrepreneurship Funds

framework of the CMU, amongst others the above-mentioned EuVECA and EuSEF reforms. The EU Commission has also identified as upcoming legislative proposals in the area of asset management:

- the development of a **Pan-European Personal Pension Product (PEPP)**. This will lay the foundations for a voluntary personal pension savings that can be managed on a pan-European scale. It will complement the existing pension products and schemes, and support the cost-efficiency of personal pensions by offering opportunities for long-term investment of personal pensions;
- the facilitation of **cross-border distribution of investment funds** and in particular digital cross-border distribution that would allow funds to grow, allocate capital more efficiently across the EU, and compete within national markets to deliver better value and greater innovation. This proposal aims to establish a genuine internal capital market by addressing fragmentation in the capital markets, removing regulatory barriers to the financing of the economy and increasing the supply of capital to businesses.

On 12 March 2018, the EU Commission published the proposal for a regulation on **facilitating cross-border distribution of collective investment funds**, amending the EuVECA and EuSEF regulations, and a proposal for a directive amending the UCITS and the AIFM directives.

Initiatives at national level

International bodies have underlined data gaps on shadow banking entities and activities as an area of concern internationally, as regulators do not have access to the same level of data on these entities as they do for banks. Against this background the **FSMA Regulation** of 16 May 2017 regarding statistical information to be submitted by certain public open-ended undertakings for collective investment has been approved by royal decree on 10 July 2017. From October 2017 onward all Belgian public open-ended funds are subject to a **new reporting standard** that is aligning requirements of all public investment funds (including UCITS) with the European AIFMD standard. Applying most of the AIFMD reporting requirements to all Belgian funds leads to an improved data availability, increases data consistency in Belgium in line with the European framework, and strengthens risk monitoring. The information received is the input of a risk model, currently under development, that will enhance the supervision of Belgian public open-ended funds. The information shall also be used to monitor the evolution of risks within the Belgian public open-ended fund industry.

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 2017 report 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.

Initiatives at international level

The International Organisation of Securities Commissions (**IOSCO**) issued recommendations and good practices to improve **liquidity risk** management for investment funds on 1 February 2018. It constitutes IOSCO's response to the potential structural vulnerabilities in the asset management sector identified by the Financial Stability Board (**FSB**). While re-affirming previous guidance, IOSCO made additional recommendations: notably, the consideration of underlying liquidity throughout the entire life cycle of the fund; the alignment between asset portfolio and redemption terms; availability and effectiveness of liquidity risk management tools; fund level stress testing; detailed guidance on disclosure to investors; and additional recommendations on contingency planning. The FSB has also identified leverage as a key structural vulnerability of the asset management and asked IOSCO to (i)

identify and/or develop consistent measures of **leverage** in funds to facilitate more meaningful monitoring of leverage for financial stability purposes, and help enable direct comparisons across funds and at a global level; and (ii) consider identifying and/or developing more risk-based measure(s) to complement the initial measures with a view to enhance authorities' understanding and monitoring of risks that leverage in funds may create. IOSCO has reviewed how existing measures capture leverage and how to adapt/modify existing measures to better capture the risks. IOSCO has come to an agreed common definition of leverage, predominately focused on the impact of market exposure created via financing and synthetic leverage gained through derivatives use. IOSCO will consult on a two-step approach to measuring leverage that tracks the FSB recommendation. This approach involves a first high level, simple and non-risk based measure such as the gross notional exposure. Then a number of risk-based metrics will be used to make a final determination on which funds present a systemic risk.

On 14 February 2018, the European Systemic Risk Board (**ESRB**) published its **recommendation on liquidity and leverage risks in investment funds**¹⁴. The ESRB recommends making a diverse set of liquidity management tools available to fund managers. In order to mitigate or prevent excessive liquidity mismatches, the ESRB recommends that AIFs holding a large amount of less liquid assets should be required to show supervisors that they would be able to maintain their investment strategy under stressed market conditions. The ESRB also recommends that ESMA develop further guidance on how fund managers should carry out liquidity stress tests. According to the ESRB, risks from leverage can be addressed by creating a harmonised reporting framework and by making better use of existing possibilities to set leverage limits. The ESRB recommends establishing a harmonised reporting framework across the EU for UCITS to make it easier for authorities to monitor such funds and assess any risks to financial stability. It also recommends that ESMA develop guidance for the implementation of Article 25 of the AIFMD, which provides an existing macroprudential tool to limit leverage in AIFs.

Initiatives at national level

As underlined in the 2017 report on asset management and shadow banking, one of the potential risks for investment funds and their investors is the liquidity risk resulting from their liquidity transformation feature. To mitigate this risk and to promote an effective liquidity risk management process the **FSMA** has drafted a **proposal on legislative changes that make additional liquidity management tools** available to all Belgian public open-ended funds: swing pricing, anti-dilution levies and redemption gates. Relevant stakeholders have been consulted and the draft proposal amending the Royal Decree of 12 November 2012 on the undertakings for collective investment meeting the conditions of Directive 2009/65/EC has been submitted to the Minister of Finance and the Minister of Economy.

5.1.2 Investment firms

As investment firms can also play a significant role in activities related to the shadow banking and asset management sector, the European Commission's proposals (20 December 2017) 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 shadow banks. This new regime is calibrated to the size and nature of investment firms, in order to boost competition and improve the management of risks.

¹⁴ Recommendation of the European Systemic Risk Board of 7 December 2017 on liquidity and leverage risks in investment funds (ESRB/2017/6)

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.

Therefore, under the proposed revised framework for investment firms, only systemic investment firms would still be subject to the CRR/CRD IV framework, 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 proposals are to 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, they set out a prudential framework that is better adapted to their business models. They consist 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 counterparties. 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 Non-retained securitisation

The new European horizontal securitisation regulation was adopted in December 2017 and will come into force on 1 January 2019¹⁵. 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).

A CRR amendment that specifies capital requirements for credit institutions and investment firms that are exposed to STS and non-STS securitisations has been adopted and comes into force at the same time¹⁶. Further level 1 regulation is currently being proposed to define sector-specific regulatory requirements for exposures to STS and non-STS securitisations: In January 2018, the European Commission published a Draft Delegated Act amending the Commission Delegated Regulation on the Liquidity Coverage Ratio ('LCR'), making STS securitisations eligible as Level 2B assets. In April 2018, the EC published a Draft Delegated Regulation regarding revised calibrations for securitisation investments by insurance and reinsurance undertakings under Solvency II.

¹⁵ 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.

¹⁶ Regulation (Eu) 2017/2401 of 12 December 2017 amending Regulation (EU) No 575/2013 on prudential requirements for credit institutions and investment firms

ESMA and EBA have received a series of mandates to implement the general and STS-related requirements of the securitisation regulation. ESMA's mandates relate to the reporting requirement to trade repositories, while EBA's mandates cover the areas of risk retention and STS criteria interpretation, as well as capital requirements for banks using internal models¹⁷. The respective technical standards and guidelines shall be finalised by the end of 2018 to ensure that the new securitisation regulation is fully implemented by 1 January 2019.

5.2 Regulation to mitigate spill-over risks (interconnectedness)

Risks originating in shadow banking 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.

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**¹⁸. As mentioned in last year's report (p. 32), step-in risk is the risk that a bank decides 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 shadow banking system to banks. This work is part of the G20 initiative to strengthen the oversight and regulation of the shadow banking system to mitigate systemic risks, in particular risks arising due to banks' interactions with shadow banking entities.

The guidelines are expected to enter into force no later than 2020. By that time, banks will have 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.

EBA has in this context furthermore developed a Regulatory Technical Standard on the methods for prudential consolidation that include several indicators that should be used by institutions in order to identify which undertakings can be prone to step-in risk. Finally, the proposals to amend the European single rulebook on banking regulation (CRR II) that is currently under discussion also includes a new supervisory power enabling competent authorities to require full or proportional consolidation of shadow banking undertakings where there is a substantial risk that the bank could decide to provide financial support to these undertakings in stressed conditions, in the absence of, or in excess of any contractual obligations to provide such support.

¹⁷ See for an overview of the ESMA and EBA mandates, respectively, <https://www.esma.europa.eu/policy-activities/securitisation> and <https://www.eba.europa.eu/regulation-and-policy/securitisation-and-covered-bonds>

¹⁸ BCBS Guidelines - Identification and management of step-in risk : <https://www.bis.org/bcbs/publ/d423.htm>

VI. Key findings, policy conclusions and recommendations

This monitoring report on asset management and shadow banking follows the publication, in 2017, of the NBB-FSMA report on asset management and shadow banking. 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.

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. As highlighted in Chapter 5, 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 size of the asset management sector in Belgium depends on the yardstick used to measure it. Net assets of Belgian public investment funds, at the core of the asset management sector, have increased by 22% over the course of 2017, up to € 155 billion, while assets under management of Belgian asset managers have increased by 18%, up to € 298 billion. Assets generating fee and commission income for Belgian banks, which include also foreign investment funds distributed to Belgian residents grew by 10%, up to € 582 billion. 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.

While the growth of the asset management sector is due to a number of factors (Chapter II), it partly stems from end-investors' increased holdings of investment funds. Belgian investment funds are also the main reason for the increase in one of the two metrics of the size of the Belgian shadow banking sector: under the FSB framework, it rises from € 128 billion at the end of 2016 to € 147 billion at the end of 2017, while under the narrower EBA framework¹⁹, on the contrary, it declines to € 17.5 billion over the same period. Within the frameworks defined by the FSB and EBA, views diverge indeed as to what extent investment funds should be considered part of the shadow banking sector. While under the EBA framework, the eligible Belgian investment funds (€ 2.5 billion out of €17.5 billion) only represent 14.5% of the shadow banking sector, this is close to 90 % under the FSB framework of the shadow banking sector (€ 132 billion out of € 147 billion). At the end of 2016 asset management entities represented 12% and 85% of the shadow banking sector, respectively.

Aggregate numbers on the size of asset management and shadow bank sectors should therefore 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 shadow bank sectors, it appears that the qualitative findings and conclusions from the 2017 report on the systemic risks associated with asset management and shadow banking 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.

¹⁹ Under the EBA framework only MMFs and some AIFs are considered to fall within the scope of the definition of shadow banking. The FSB framework encompasses not only MMFs and highly leveraged investment funds but all investment funds, with the exception of equity funds.

6.1 General policy recommendations: follow-up

The importance of the asset management and shadow banking sectors, as well as the interconnectedness of the shadow banking sector with the banking sector and other sectors of the economy demand a continuation of the current monitoring efforts of both sectors. As competent authorities, the FSMA and the NBB therefore remain committed to an annual updating of the key statistics of this monitoring report.

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 shadow banking (including, but not limited to, the FSB, IOSCO, ESRB, EBA and ESMA).

In an effort to close the data gaps on shadow banking entities and activities (in particular investment funds) identified by the FSB and the ESRB, new and improved Belgian reporting requirements for certain public investment funds have entered into force on 1 October 2017. These new reporting requirements are the result of a fruitful cooperation between the FSMA and the NBB.

The new reporting requirements are well aligned with European standards, as they are based on the reporting requirements of AIF managers under the AIFMD. The newly collected data should allow the FSMA to better assess certain risks that may be present in investment funds, such as market risk, liquidity risk, counterparty risk, leverage risk or concentration risk. In this respect, the FSMA intends to use the newly collected data as the basis of an additional quantitative risk assessment tool, complementing its existing supervisory approaches.

The FSMA also periodically shares aggregate statistics on the investment fund sector with the NBB.

While the NBB has done efforts to close data gaps in the Belgian OFI sector, it is also involved in ongoing work at ECB/ESRB level to gain a better understanding of this large component of the broad measure of shadow banking.

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.

The FSMA has therefore continued its efforts to promote an effective liquidity risk management process and to make swing pricing, anti-dilution levies and redemption gates available as additional liquidity management tools for all Belgian investment funds. A draft of legislation has been submitted to the Minister of Finance and the Minister of Economy.

The 2017 report on asset management and shadow banking also identified the need to mitigate potential risks related to the interconnectedness between the shadow banking 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) that published its Financial Sector Assessment (FSAP) report assessing the Belgian financial sector earlier this year. The NBB has in that

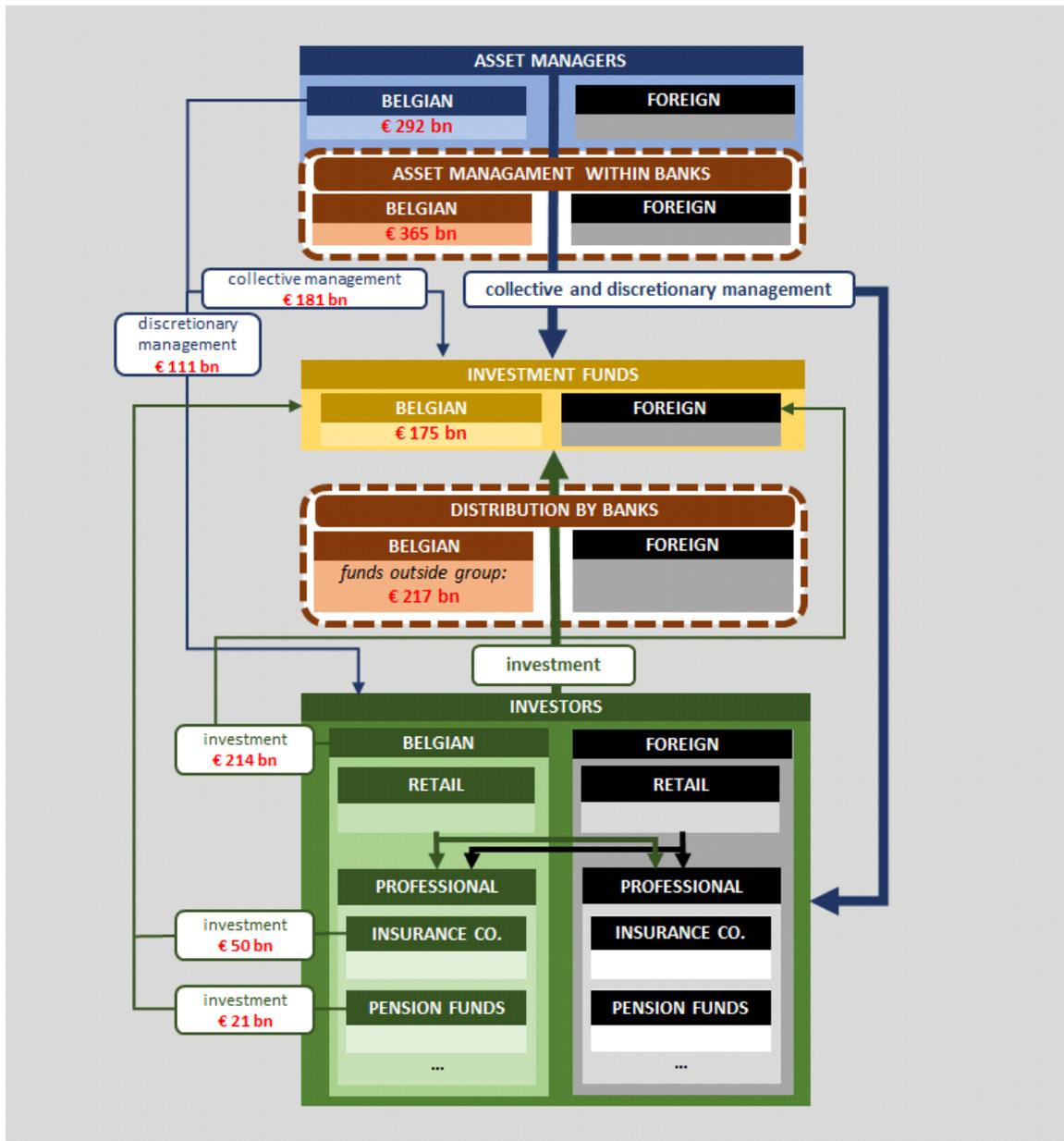
regard continued to closely monitor and analyse both the contractual and non-contractual links between shadow banks and asset management vehicles on the one side and banks and insurance companies on the other side, especially within financial groups. These efforts have been complemented by further developments 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.

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Statistical annex

II. Overview of the Belgian asset management sector

Chart 2.1: Schematic overview of the Belgian asset management sector



Sources: FSMA, NBB.

Table 2.1: Gross statistics of asset management activities relevant for Belgium (€ billion, year-end)

	(Net) Assets [1]	
	2016	2017
Belgian investment funds	144	175
Public	127	155
Non-public	17	19
Belgian asset managers	248	292
Assets under collective management	146	181
Assets under discretionary management	103	111
Assets under investment advice	2	2
Assets generating fee and commission income for Belgian banks	531	582
Assets managed in the bank	336	365
Collective management	193	214
Discretionary management	143	151
Collective investment products distributed but not managed	195	217
Foreign investment funds held by Belgian residents (end-June data)	189	214
Households	100	114
Other investors	89	100
Investments of Belgian insurance companies in investment funds	46	50
Investments of Belgian institutions for occupational retirement provision in investment funds	21	N.A.

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.

Table 2.2: Number of registered (sub-)funds and net asset value of investment fund types in Belgium

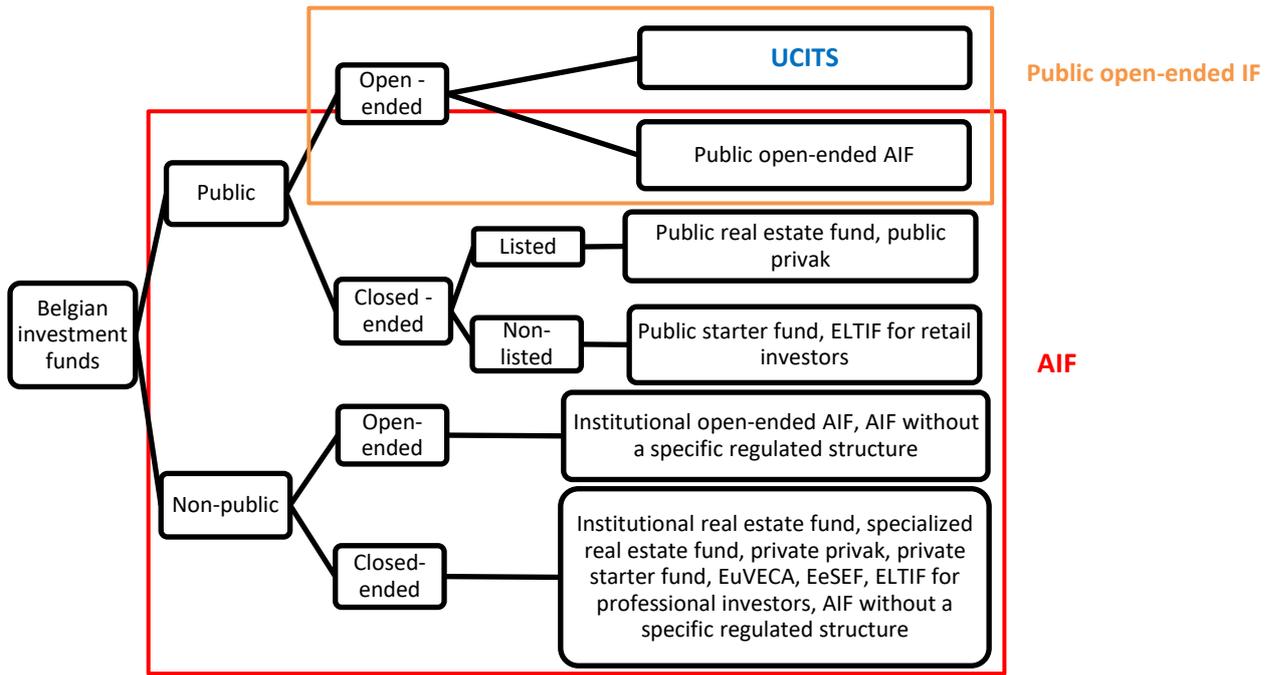
	Registered (sub-)funds (year-end)		Net asset value (€ million, year-end)	
	2016	2017	2016	2017
UCITS	71 (627)	74 (688)	81,165	114,449
AIF	147 (748)	186 (638)	62,905	60,195
Public open-ended AIF	57 (540)	51 (370)	45,646	40,619
Public <i>privak/pricaf</i>	1	1	135	162
Public real estate fund	0	0	0	0
Public starter fund	0	0	0	0
Institutional real estate fund	0	0	0	0
Institutional open-ended AIF [1]	31 (145)	32 (165)	16,210	17,500
Private <i>privak/pricaf</i> [1]	41	52	59	439
Specialised real estate fund [1]	0	10	0	12
Private starter fund [1]	0	0	0	0
EuVECA	0	0	0	0
EuSEF	0	0	0	0
ELTIF (retail investors)	0	0	0	0
ELTIF (professional investors)	0	0	0	0
AIF without specific regulated structure [2]	17 (21)	40	855	1,462
Total	218 (1,375)	260 (1,326)	144,070	174,643

Source: FSMA, FPS Finance.

Notes:

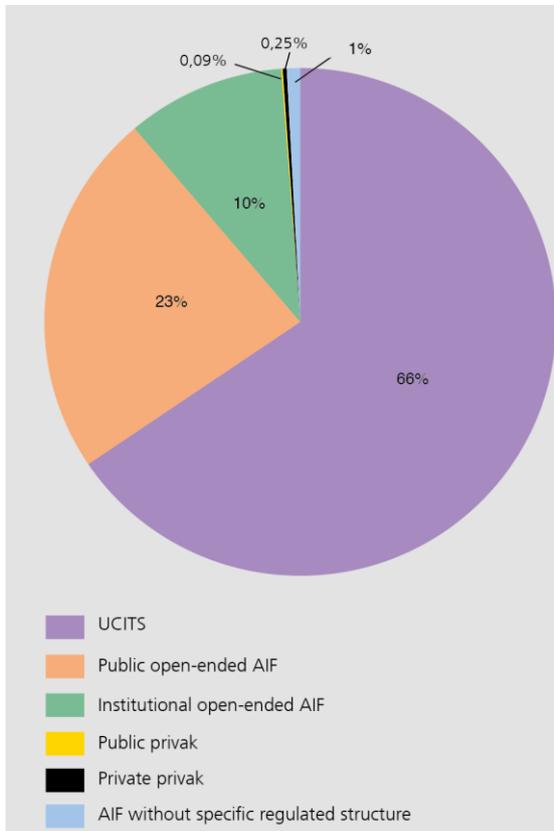
This table presents the number of registered (sub-) funds and their net asset value (in € million) of the Belgian investment fund industry, classified according to the applicable regulatory regime. [1] The estimated net asset value of the institutional open-ended AIFs, specialised real estate funds, private *privaks/pricafs* and private starter funds is only a *lower bound*. It is the net asset value of these entities for which the FSMA is the competent authority receiving the reports concerning these AIFs (under the reporting requirements of the AIFMD). 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. [2] The number (net asset value) of registered (sub-) funds of AIFs without a specific regulated structure is the number (net asset value) of Belgian AIFs for which their managers reported data to the FSMA and which were not registered as an AIF of one of the above types. It is possible that Belgian AIFs have a manager for which the FSMA is not the competent authority.

Chart 2.2: Overview of investment fund types in Belgium



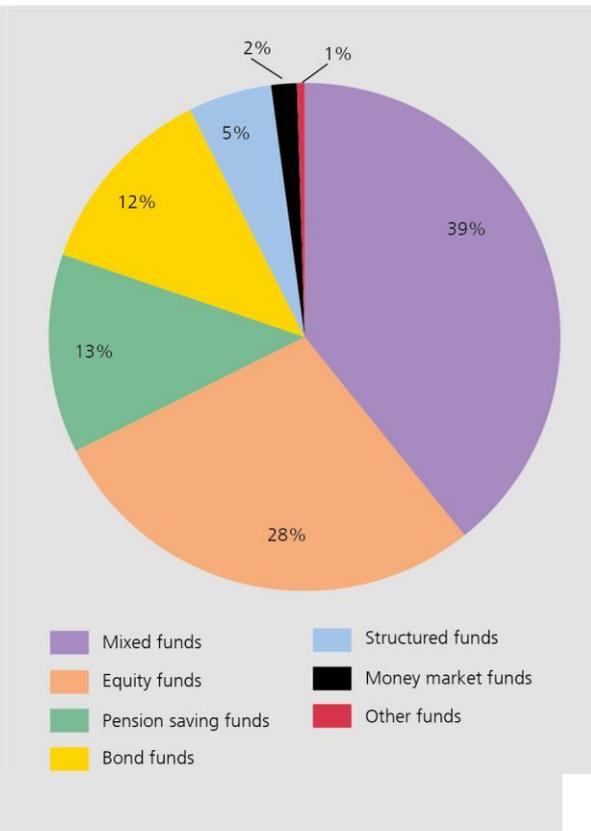
Source: FSMA.

Chart 2.3: Breakdown of the NAV of Belgian investment funds according to investment fund type (end 2017)



Source: FSMA.

Chart 2.4: Breakdown of the NAV of public open-ended investment fund types by investment fund policy (end 2017)



Source: FSMA.

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

	UCITS		Public open-ended AIF		Total	
	2016	2017	2016	2017	2016	2017
Equity funds	34,116	43,063	470	892	34,586	43,955
<i>o/w fund of funds or feeder</i>		1,467		557		2,024
Bond funds	5,467	14,439	3,971	4,694	9,438	19,133
<i>o/w fund of funds or feeder</i>		7,103		1,846		8,949
Mixed funds	9,582	49,862	462	11,016	10,044	60,878
<i>o/w fund of funds or feeder</i>		39,628		10,606		50,234
Pension savings funds	0	0	18,059	19,651	18,059	19,651
<i>o/w fund of funds or feeder</i>				274		274
Money market funds	756	1,898	1,184	619	1,940	2,517
Structured funds	4,638	4,545	6,121	3,654	10,759	8,199
Other funds	514	643	120	92	634	735
Fund of funds [1]	26,092		15,259		41,351	
Total	81,165	114,449	45,646	40,619	126,811	155,067
<i>o/w fund of funds or feeder</i>		48,198		13,283		61,418

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 during 2017.

Table 2.4: Number of authorised Belgian UCITS and AIF management companies, their total assets under management and assets under investment advice (€ billion, year-end)

	2016	2017
Number of authorised management companies	9	9
Assets under management	248.3	291.6
Collective management	145.7	181.0
Discretionary management	102.5	110.6
Assets under investment advice	2.4	1.9

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 2.5: Number of registered (sub-)funds and net asset value of publicly offered open-ended foreign investment fund types in Belgium

	Registered/ notified (sub-) funds (year-end)		Net asset value (€ billion, year-end)	
	2016	2017	2016	2017
UCITS	528 (3,819)	531 (3,992)	N.A.	N.A.
Public open-ended AIF	5 (40)	4 (17)	5.624	5.018

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 2.6: Investments by Belgian residents in foreign investment funds (€ billion, year-end)

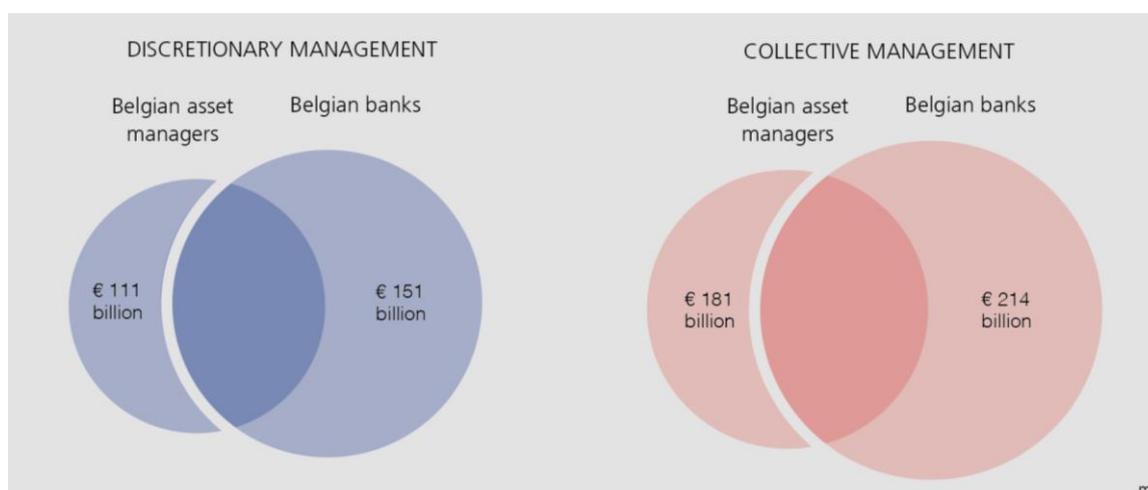
	June 2016			June 2017		
	MMFs	Non-MMF investment funds	Total	MMFs	Non-MMF investment funds	Total
Total	13.8	174.9	188.7	12.5	201.8	214.2
By holding sector						
Households	1.6	98.0	99.6	1.9	112.3	114.2
Other non-financial investors (incl. general government)	4.5	8.2	12.7	2.9	9.9	12.8
Banks	0.0	0.1	0.1	0.0	0.2	0.2
Non-MMF investment funds	3.0	36.3	39.3	1.6	42.5	44.0
Insurance corporations	3.2	20.7	23.9	3.1	21.8	24.9
Pension funds	0.2	11.1	11.2	0.2	13.7	13.8
Other financial corporations	1.4	0.6	2.0	2.8	1.4	4.2
By issuing country						
DE	0.0	10.2	10.2	0.0	10.9	10.9
FR	9.0	11.5	20.5	8.4	13.1	21.5
IE	0.0	10.1	10.1	0.0	13.2	13.2
LU	4.8	139.4	144.2	4.0	159.7	163.7
NL	-	0.7	0.7	0.0	1.4	1.4
US	0.0	1.0	1.0	0.0	1.2	1.2
Other countries	0.0	2.9	2.9	0.0	2.2	2.3

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 2.5 Overlap between AuM of Belgian banks and AuM of Belgian asset managers (end 2017)



Source: FSMA, NBB.

Table 2.7: Fee and commission (F&C) income and assets involved in asset management related activities of Belgian banks

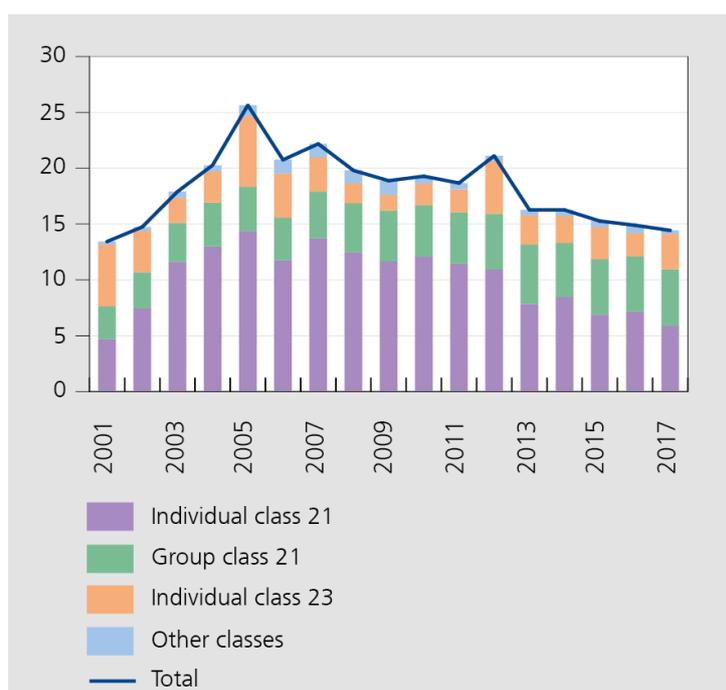
	2016			2017		
	Assets involved	F&C income	Average remuneration	Assets involved	F&C income	Average remuneration
	€ billion, year-end	€ million, full year	bps	€ billion, year-end	€ million, full year	bps
Assets managed within the bank [1]	336	1,443	43	365	1,710	47
Collective management	193			214		
Discretionary management	143			151		
Collective investment products distributed by the bank (but not managed within the bank) [2]	195	605	31	217	720	33
Total of the activities above	531	2,048	39	582	2,430	42
Custody [3]	4,187	678	2	4,395	738	2
Collective investment	501			806		
Other	3,686			3,589		
Central administration services for collective investment [4]	145	77	5	174	114	7

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. Figures for 2016 are corrected for some changes in the scope of the consolidated data in 2017. [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 2.6: Belgian insurers' life insurance premiums (€ billion)



Source: NBB.

Table 2.8: Covering assets for class 23 contracts' technical provisions of Belgian insurers (€ million, year-end)

	2016	2017
Collective investment undertakings	27,735	31,431
Equity funds	11,511	9,304
Asset allocation funds [1]	6,668	6,264
Other funds [2]	6,493	11,649
Debt funds	2,605	3,763
MMFs, real estate funds and alternative funds [3]	457	450
Cash and deposits	2,416	2,697
Deposits with term longer than 1 year	2,310	2,127
Transferable deposits and cash	106	569
Corporate bonds	600	797
Other [4]	672	612
Total	31,423	35,536

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 2.9: Belgian insurers' investments in UCIs other than in the context of their unit-linked life insurance business (€ million, year-end)

	2016	2017
Debt funds	5,870	5,335
Money Market Funds (MMFs)	2,997	2,108
Equity funds	1,495	1,840
Real estate funds	1,102	1,315
Alternative funds	859	1,018
Other funds	809	1,089
Private equity funds	669	761
Asset allocation funds	223	315
Infrastructure funds	162	251
Total	14,187	14,032

Source: NBB, Solvency II reporting.

Notes:

This table presents a breakdown, by type of fund, of Belgian insurers' investments in undertakings for collective investment other than in the context of their unit-linked life insurance business.

Table 2.10: Total assets and investments by Belgian institutions for occupational retirement provision (€ million, year-end)

	2015	2016
Investments	22,529	27,373
Investment fund units	17,330	20,914
Total assets	24,693	29,781

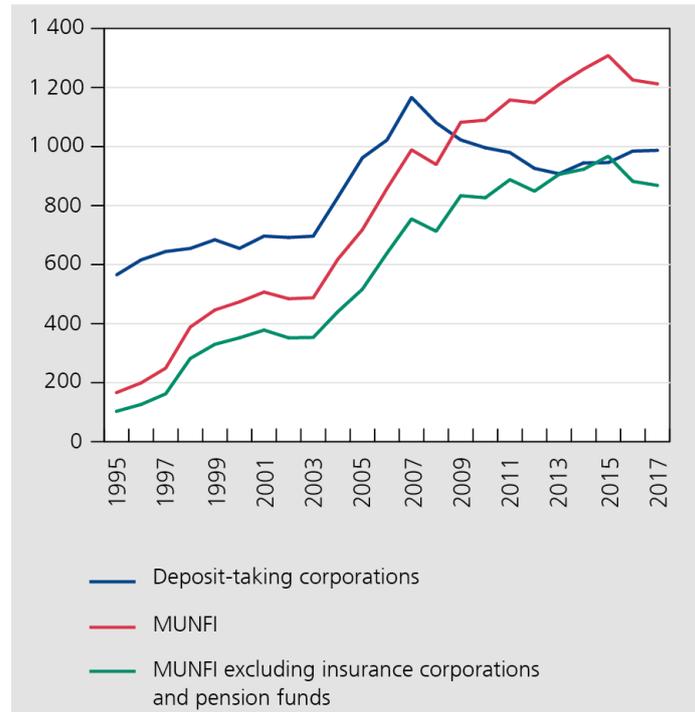
Source: FSMA.

Notes:

This table presents statistics on the total assets and investments by Belgian institutions for occupational retirement provision, in particular their investments in units of investment funds.

III. Overview of the Belgian shadow banking sector

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

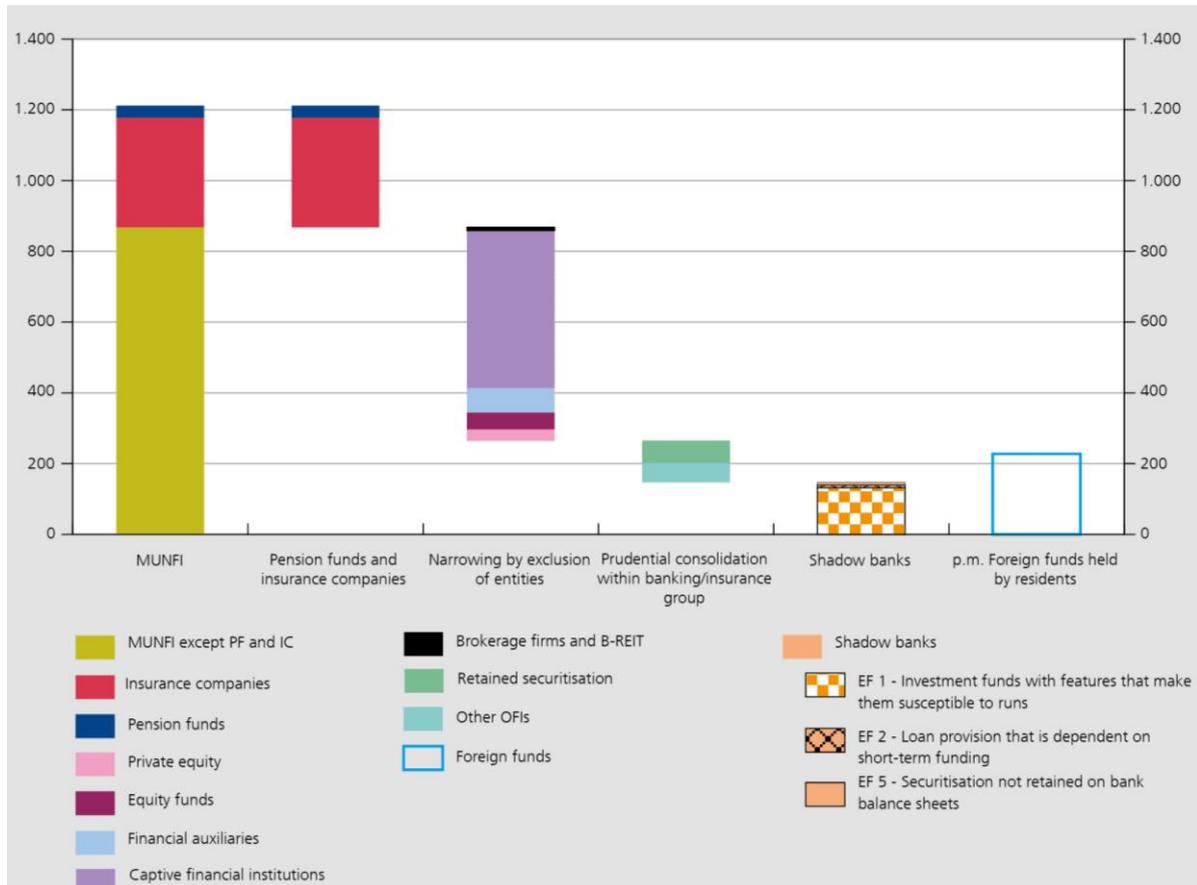


Source: NBB calculations based on NAI data.

Notes:

MUNFI = Monitoring universe of non-bank financial intermediation.

Chart 3.2: Delineation of the Belgian shadow banking sector according to the narrow FSB criterion (at the end of 2017, in € billion)



Source: NBB calculations based on NAI data.

Notes:

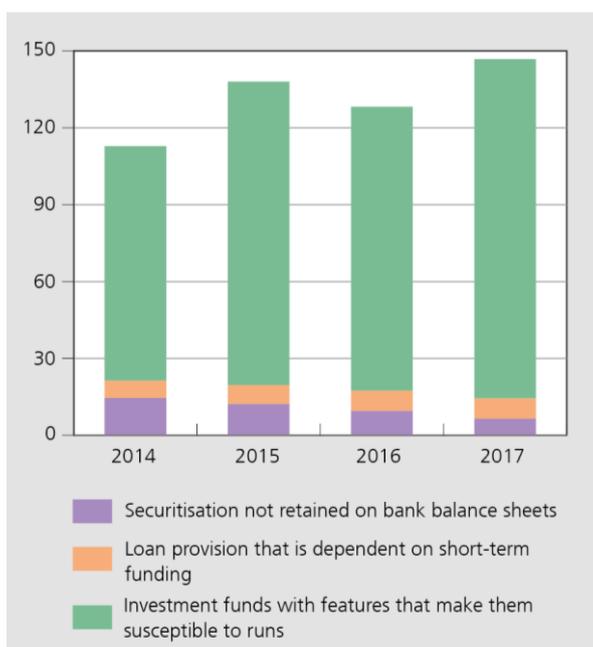
MUNFI = Monitoring universe of non-bank financial intermediation

PF = Pension fund

IC = Insurance company

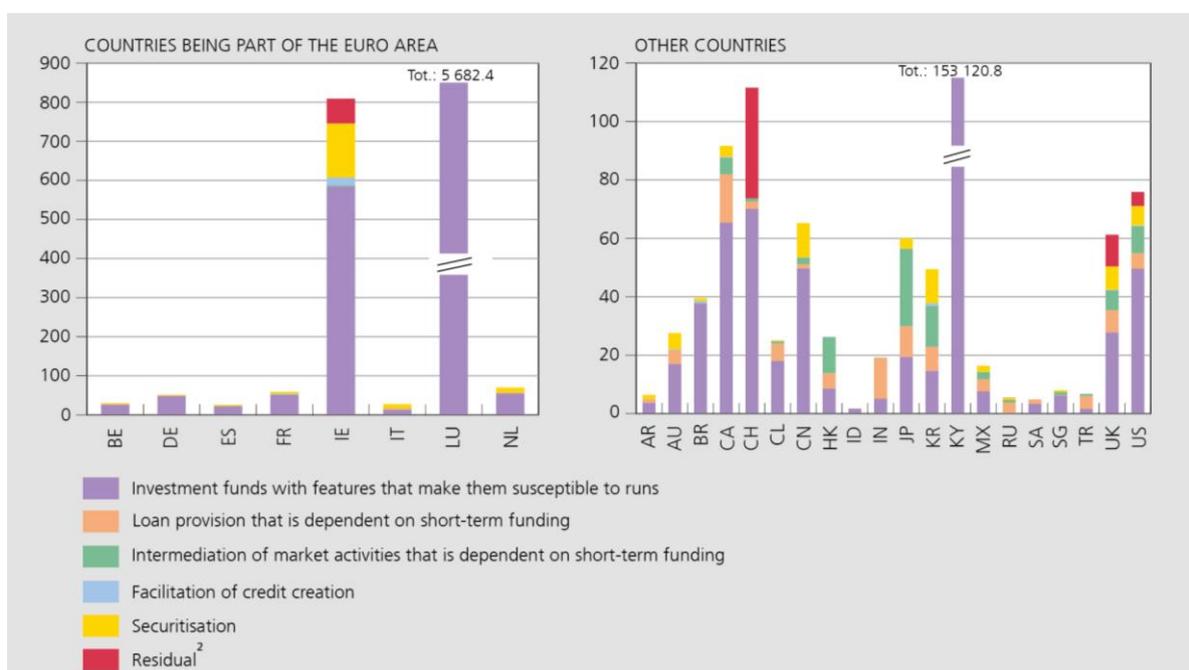
OFIs = Other financial intermediaries

Chart 3.3: Belgian shadow banking sector according to the narrow concept of the FSB (in € billion)



Source: NBB calculations based on NAI data.

Chart 3.4: International comparison of the shadow banking sector: narrow FSB measure [1] (at the end of 2015, in % GDP)



Sources: FSB, NBB.

Notes:

[1] Entities consolidated in banking groups are excluded if these data are available.

[2] Residual = part of the shadow banking sector that is not classified in an economic function.

IV. Monitoring framework

Table 4.1: Risk metrics for Belgian shadow banks (ratios, end 2017)

		EF1			EF2	EF5	Interpretation
		Bond (BE)	Mixed (BE)	Other non-equity (BE)	Finance companies	Securitisation (incl. retained)	
Credit intermediation	CI1 [1]	0.6	0.1	0.5	0.7	1.0	Between 0 and 1, higher values show more involvement in credit intermediation
	CI2 [2]	0.0	0.0	0.0	0.4	0.9	
Maturity transformation	MT1 [3]	0.5	0.1	0.5	-0.4	0.0	Between -1 and +1, 0 means no maturity transformation, negative value implies negative maturity transformation
	MT2 [4]	2.0	1.1	2.0	0.5	1.1	Between 0 and 2, value 1 means ST liabilities fully covered by ST assets, value moving to 2 means ST funding dependence, value between 0 and 1 indicates negative mat transform.
Liquidity transformation	LT1 [5]	1.9	2.0	1.9	1.0	1.0	Between 0 and 2 =1: ST liab equal to liquid assets; no liquidity transformation; >1: liquidity mismatch
	LT2 [6]	1.9	1.9	1.9	0.9	1.0	
Leverage	L1 [7]	1.0	1.0	1.0	1.7	2440.8	1=no leverage; the higher, the more leverage

Sources: NBB calculations based on NAI- data.

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.

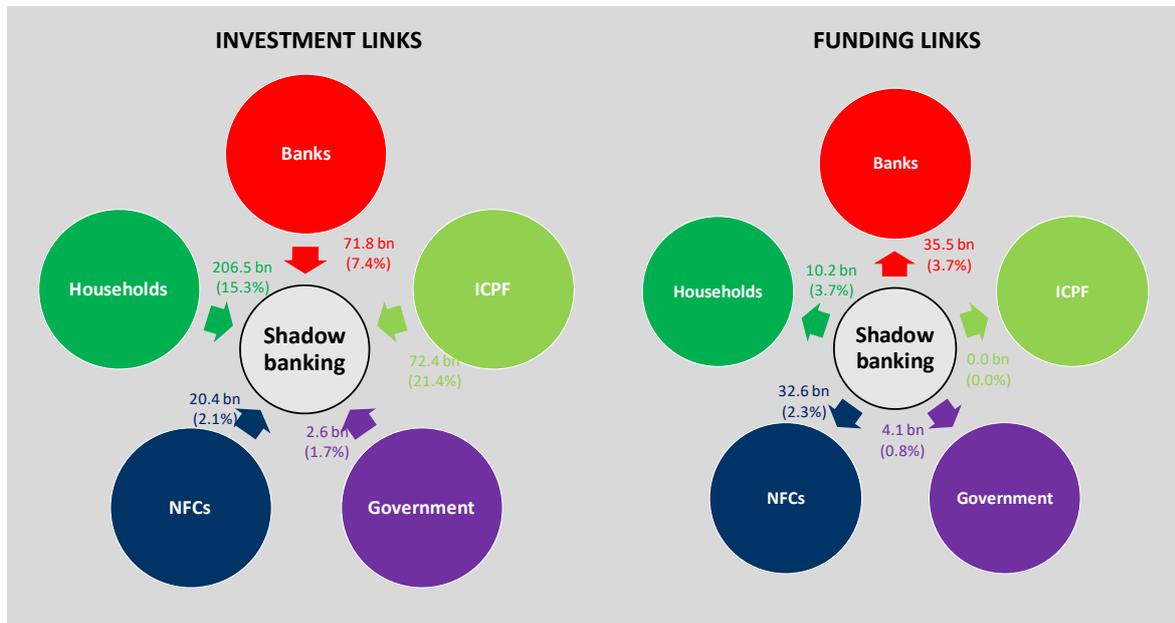
[4] (Short-term liabilities of ≤ 12 months + redeemable equity of ≤ 12 months)/short-term assets of ≤ 12 months.

[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] (Assets under management or total financial assets – liquid assets (broad) + short-term liabilities ≤ 30 days + redeemable equity ≤ 30 days)/assets under management or total financial assets. Liquid assets in a broad definition include High Quality Liquid Assets, such as cash and equivalents, short-term investments and government securities with a 0% risk weight under the Basel I Standardized Approach for credit risk.

[7] 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 2017, in % of the originating sectors’ consolidated assets [2])



Sources: FSB, NBB.

Notes:

[1] Shadow banking =

BE: S123 + S124 excluding equity funds + S125-1 excluding retained securitisations + S125-4 + S125-9

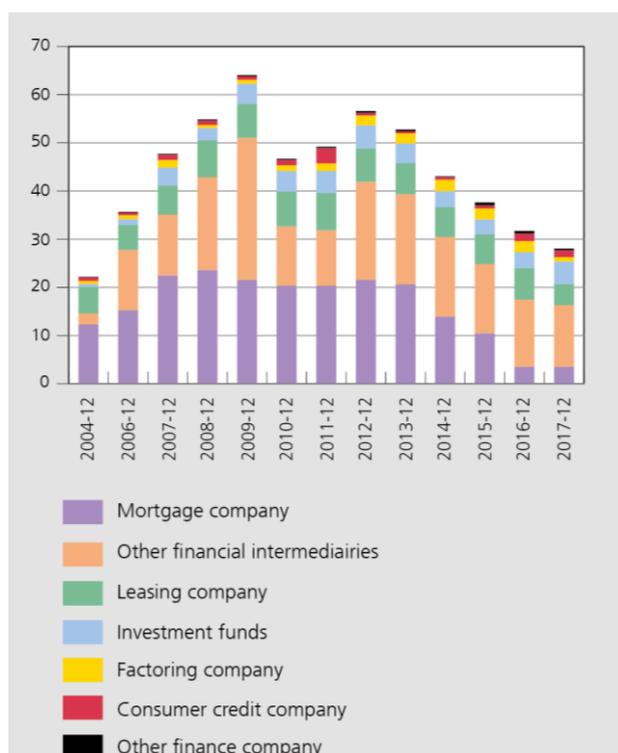
+EMU: S123 + S124 (total) + S125 (total)

[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)

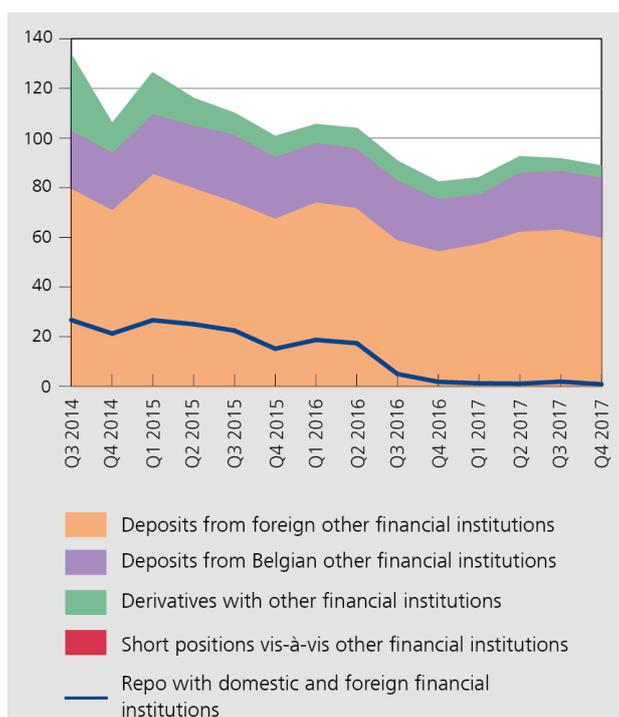


Sources: NBB, Central Corporate Credit Register.

Notes:

[1] Excluding central banks, deposit-taking corporations, holding companies and investment companies which fall outside of the scope of the shadow banking 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 2017)

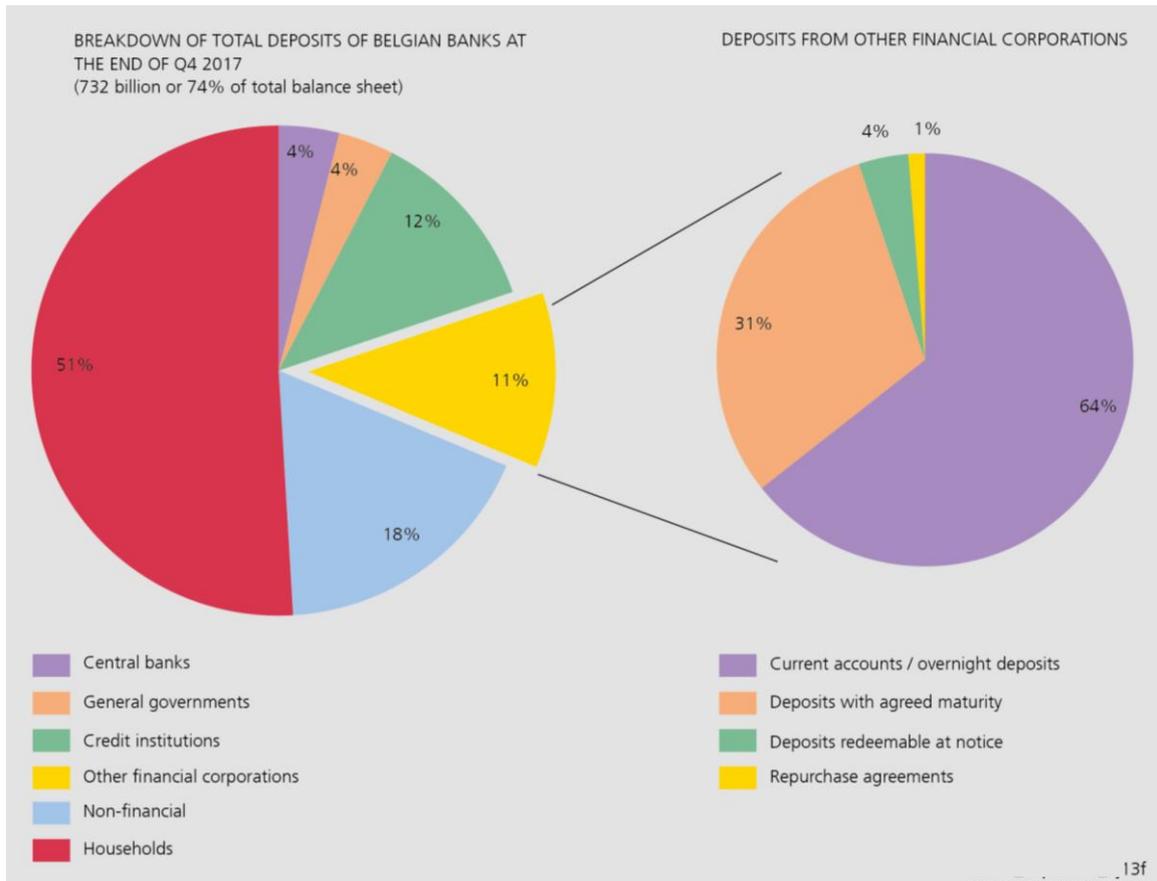


Chart 4.5: Breakdown of the notional amount of the derivative portfolio of Belgian banks (end 2017)

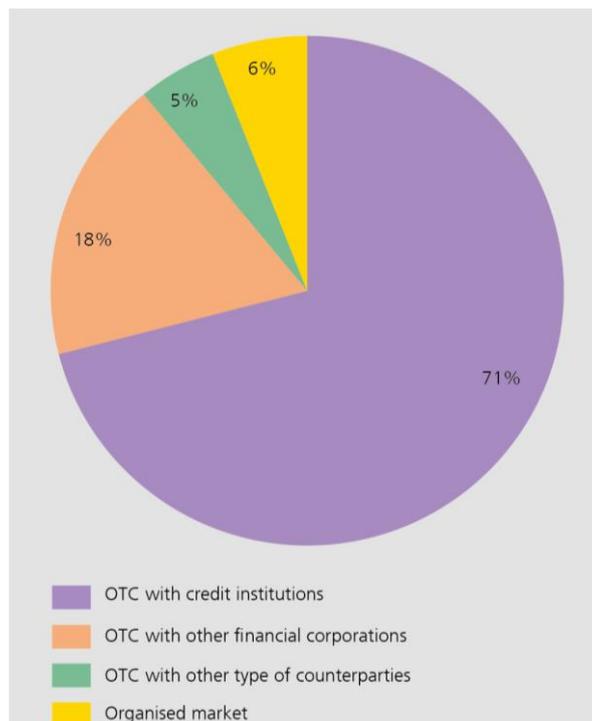
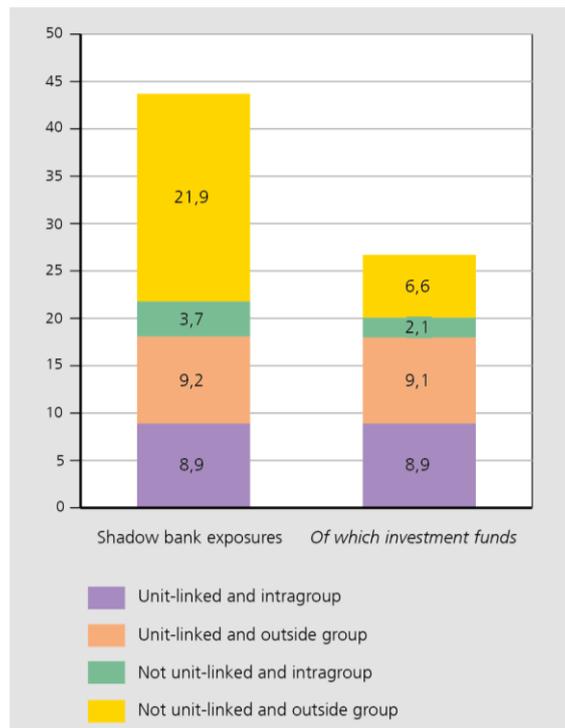
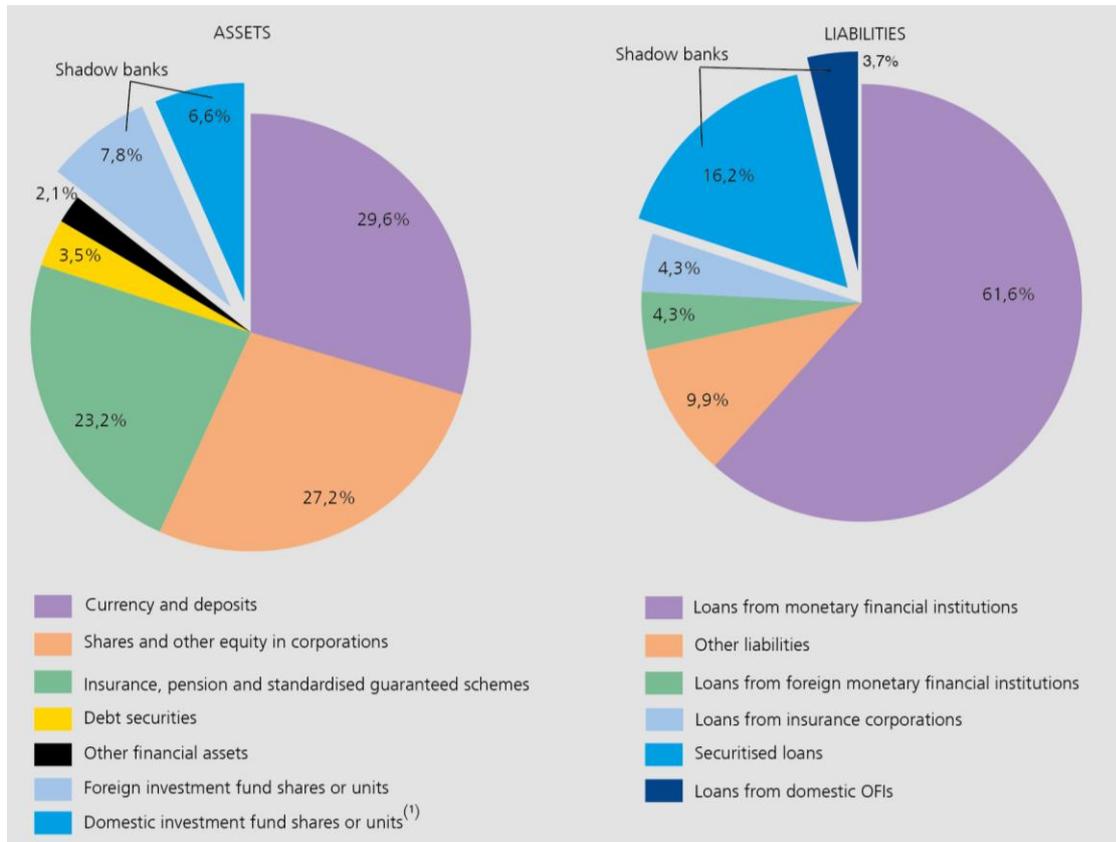


Chart 4.6: Insurance sector's shadow bank exposures (€ billion, end 2017)



Source: NBB, Solvency II reporting.

Chart 4.7: Breakdown of households' financial assets and liabilities (% of total at the end of 2017)

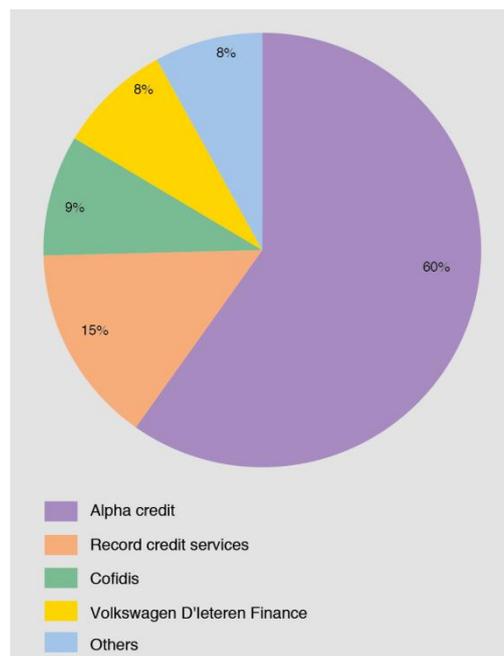


Source: NBB (Financial accounts statistics).

Notes:

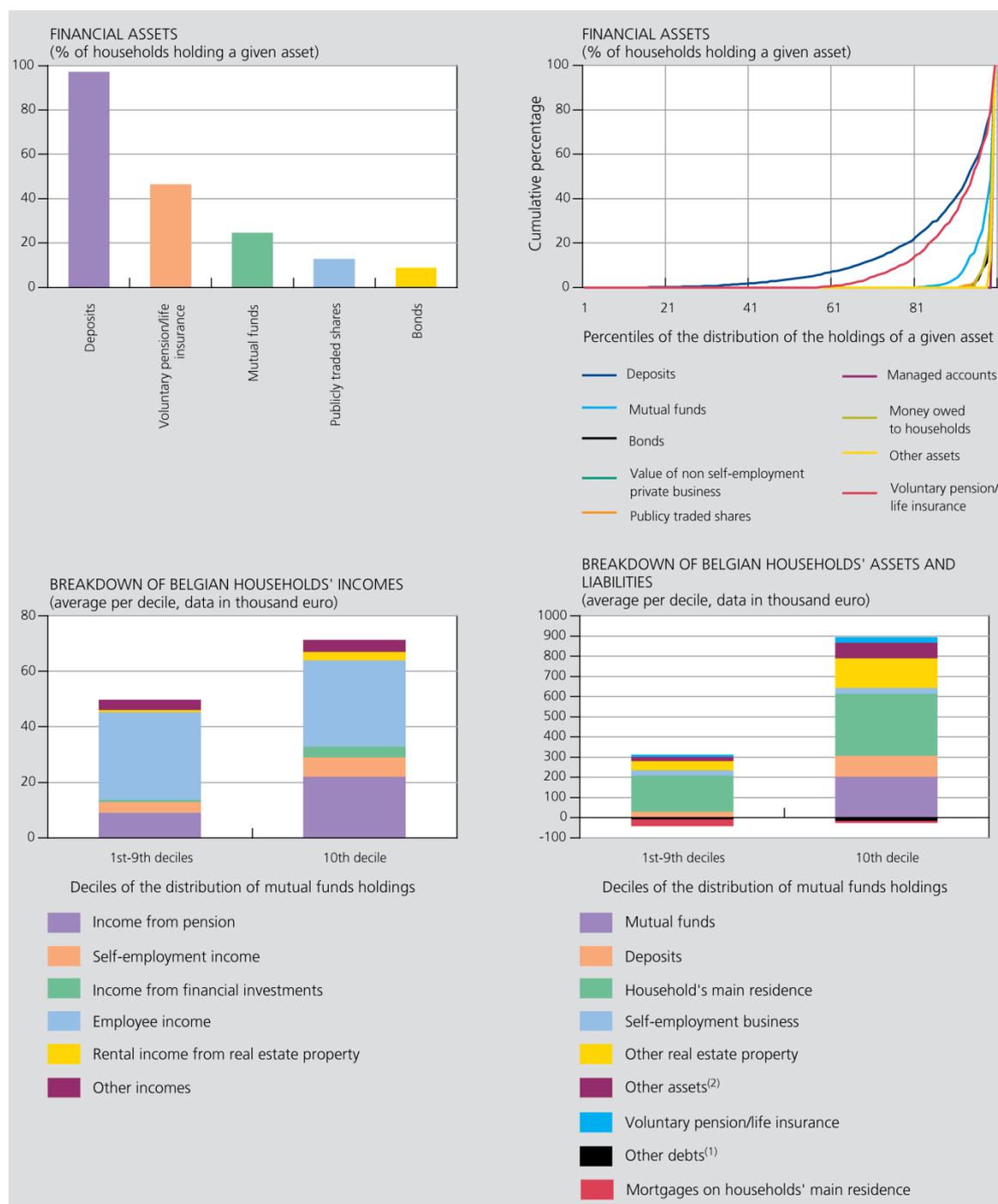
[1] Excluding equity investment funds.

Chart 4.8: Largest consumer credit institutions in Belgium (% of sector's total assets, data for 2016)



Source: NBB (Classification of institutional sectors and Central Balance Sheet Office).

Chart 4.9: Concentration of financial assets in the Belgian population and characteristics of households holding mutual fund shares (data for 2014)



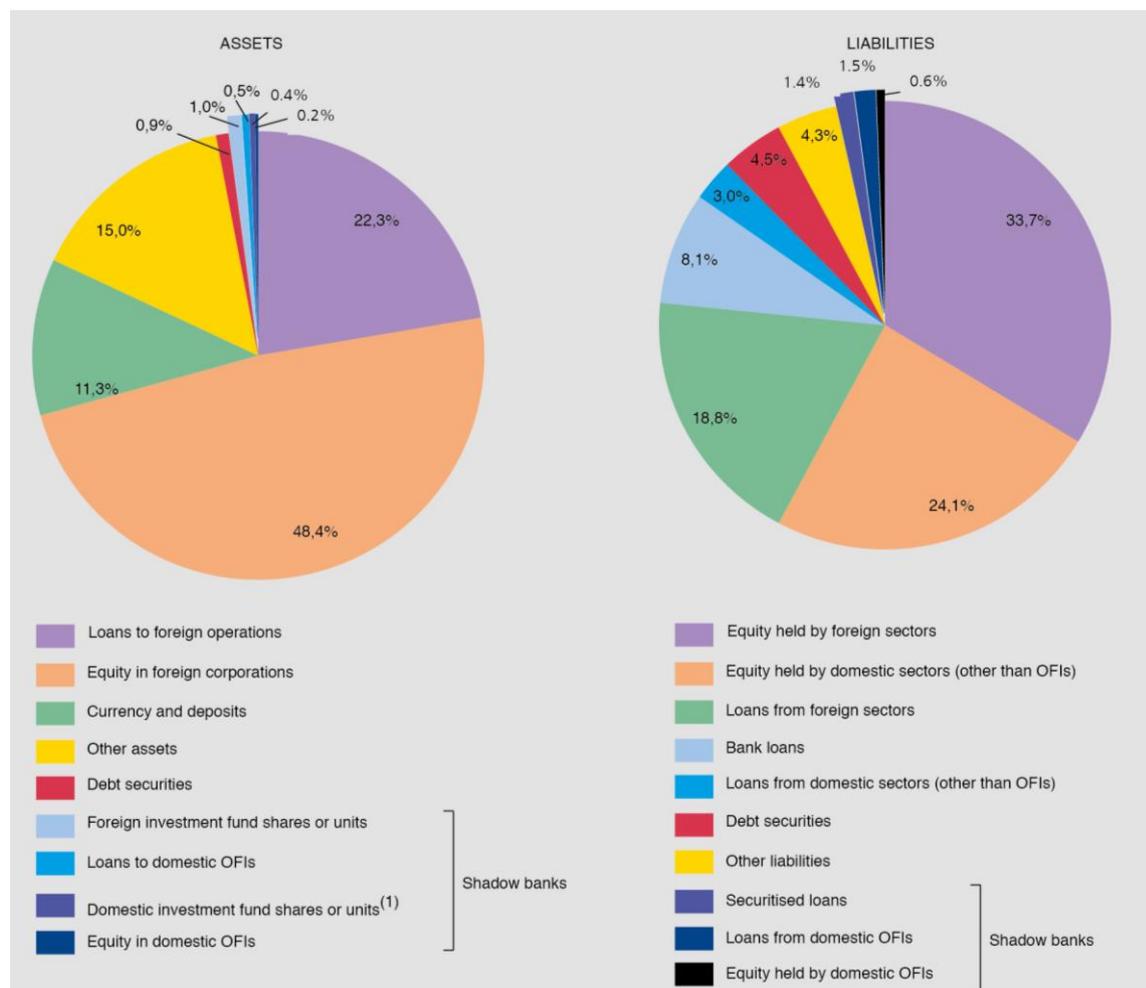
Source: NBB (Household Finance and Consumption Survey).

Notes:

[1] Mortgages on other properties than households' main residences and non-mortgage debt.

[2] Vehicles, valuables, bonds, value of non-self-employment private business, publicly traded shares, managed accounts, money owed to households and others.

Chart 4.10: Breakdown of non-financial corporations' financial assets and liabilities (% of total at the end of 2017, consolidated data)

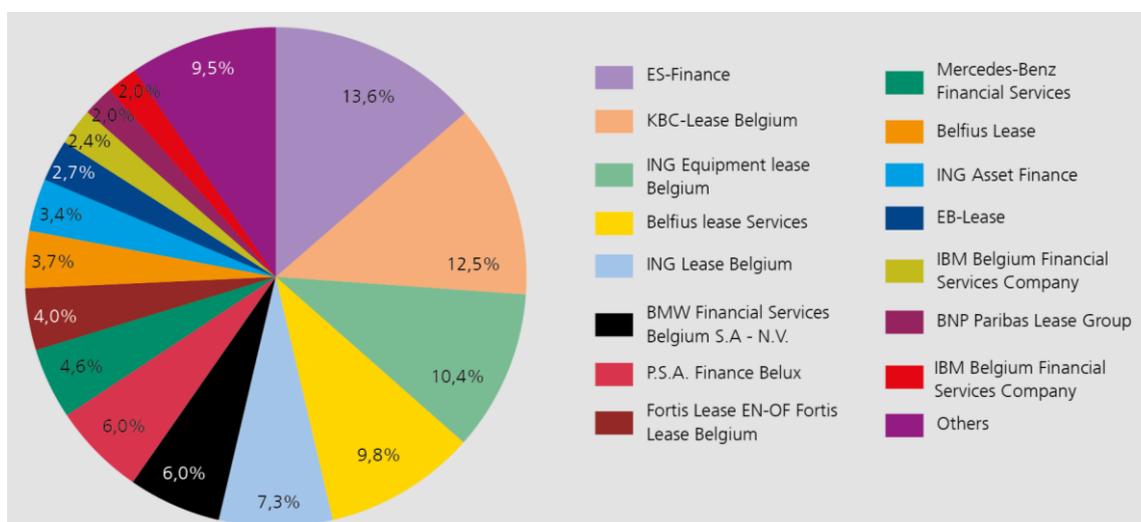


Source: NBB (Financial accounts statistics).

Notes:

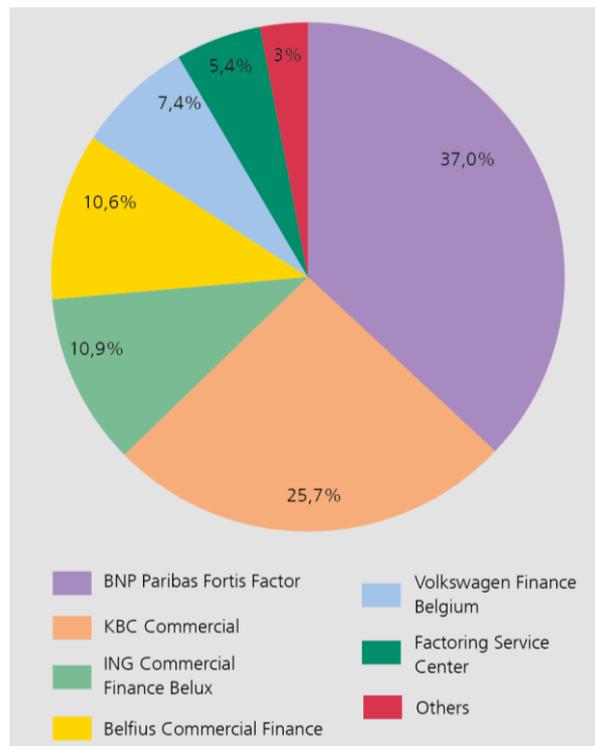
[1] Excluding equity investment funds.

Chart 4.11: Largest leasing enterprises in Belgium (% of sector's total assets, data for 2016)



Source: NBB (Classification of institutional sectors and Central Balance Sheet Office).

Chart 4.12: Largest factoring corporations in Belgium (% of sector's total assets, data for 2016)



Source: NBB (Classification of institutional sectors and Central Balance Sheet Office).