Report on Asset management and Shadow banking

Submitted to the Minister of Finance of Belgium and the High Level Expert Group on the future of the Belgian financial sector

September 2017

FSMA
FINANCIAL SERVICES AND MARKETS AUTHORITY

NationalBank OF BELGIUM
Eurosystem

Report on Asset management and Shadow banking

Submitted to the Minister of Finance of Belgium and the High Level Expert Group on the future of the Belgian financial sector

September 2017

FSMA
FINANCIAL SERVICES AND MARKETS AUTHORITY

National Bank OF BELGIUM
Eurosystem

INTRODUCTION

In 2015, the Minister of Finance announced the establishment of a **High Level Expert Group (HLEG) on the Future of the Belgian Financial Sector** with a mandate to reflect on the position of the Belgian financial sector, the main challenges it is facing and its long-term prospects. The report of this HLEG was published on 12 January 2016 and one of the **findings and recommendations related to the growth of the non-bank financial sector**: « *This downsizing and deleveraging of the banking activities went together with an increase in the non-bank and in particular the so-called shadow banking activities, leading to some diversification of the funding sources and instruments but also to potential risks which will need to be monitored.* [...] *While this parallel banking sector (shadow banking) offers scope for wider diversification of funding sources, an increased loss absorption capacity of the economy, and potential efficiency gains in capital allocation, it could also render financing flows more opaque and possibly increase risks through more extreme liquidity risks and leverage positions.* [...] *To the extent that the shift towards more non-bank intermediated finance becomes structural – potentially supported by the EU's Capital Markets Union initiative – there may be a need to extend the supervisory and macro-prudential reach and to ensure close coordination and information exchange between supervisors both at national as well as EU levels.* »

As part of the recommendations related to « Enhancing the current regulatory and supervisory framework », **the HLEG report noted that « *The competent Belgian authorities should closely monitor the risks related to shadow banking and the interconnectedness with other (financial) sectors.*** *Taking into account their respective responsibilities, they should* ***report back to the Minister of Finance*** *on these risks, especially those related to systemic risks relative to the development of the asset management industry, and on potential considerations with respect to consumer protection* **» .**

This joint FSMA-NBB report on the risks related to the shadow bank and asset management sector was produced thanks to a close and fruitful co-operation and exchange of information between both authorities. While the **findings of the report are relatively comforting** for the aspects related to Belgium as regards the potential systemic risks associated with shadow bank entities and asset management activities, the **developments in both sectors will need to be monitored closely and further work on closing data gaps will be welcome** in order to arrive at more granular conclusions and risk assessments in the future.

The Executive summary provides an overview of the main findings as well as of the policy conclusions and recommendations.

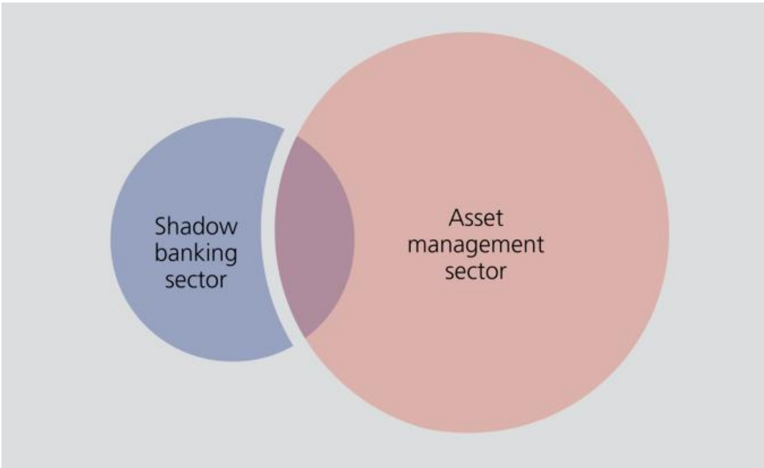
EXECUTIVE SUMMARY

This report on shadow banking and asset management — and associated risks for financial stability in Belgium — **relates to the ongoing evolution towards a more market-based financial system, where more financial intermediation occurs outside the banking sector**.

Market-based financing provides a valuable alternative to bank funding and helps to support real economic activity. It allows consumers to contribute to the financing of economic activity and it is a welcome diversification of credit supply, provided by non-bank financial institutions that are generally less complex, less leveraged and less subject to maturity mismatches than banks. Complementing and replacing credit intermediation through banks with market-based finance could thus be very beneficial from the perspective of financial stability. Such dynamics are also in line with the strategic objective of developing a more market-based EU financial system through the European Capital Markets Union.

However, if market-based financing and financial intermediation is involved in bank-like activities, such as maturity and liquidity transformation or the creation and facilitation of leverage and credit, **it can become a source of systemic risk(s), both directly and through its interconnectedness with the global financial system, and an investor protection issue**.

Chart: Shadow banking and asset management



Sources: FSMA, NBB.

Market-based financing can take many forms, and this report was asked to focus on asset management activities and shadow banks. As **both sectors overlap only to some extent**, this report analyses the Belgian asset management and shadow bank sectors separately, so as to map and comment all relevant aspects. Various ways of defining and measuring the sectors are reviewed and relevant activities and regulations are documented. The report also highlights the links and interconnectedness that exist between both sectors and other Belgian financial intermediaries and the Belgian non-financial private sector.

Definition of the Belgian asset management and shadow bank sectors

- **Asset management refers to the segment of the financial industry that is involved in the management of financial assets on behalf of investors**, either through the collective management of an investment fund or through the discretionary management of an individual investor's portfolio. Those investors can be households or non-financial corporations as well as professional investors such as financial institutions. **Chapter 2 of this report provides a description and an overview of the asset management sector in Belgium**, 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. This chapter **discusses the (sub-) sectors of :**

- **the Belgian investment funds** (total net asset value of € 144 billion, of which € 81 billion are accounted for by UCITS and € 46 billion by public open-ended AIFs);
- **the Belgian asset managers** (UCITS and AIF management companies, with assets under management (AuM) of € 248 billion);
- **the foreign investment funds distributed in Belgium and held by Belgian residents** (€ 189 billion, of which € 144 billion of funds issued under Luxembourg law);
- **the involvement of the Belgian banks in asset management activities, broadly defined**, be it as asset manager, as distributor of asset management products or as a sponsor or counterparty of these unconsolidated entities, with contractual links to investment funds and other asset management vehicles in the role of custodian, derivative counterparty, securities lender, provider of a credit line, etc...;
- **the involvement of the Belgian insurance companies in asset management activities,** in particular as part of the unit-linked life insurance activities (class 23 contracts) and **the use by Belgian insurance companies of collective or discretionary asset management services** of asset managers for the management of their investment portfolio;
- **the use by Belgian pension funds of collective or discretionary asset management services** of asset managers for the management of their investment portfolio.

- **Shadow banking is, as such, not identified in the available statistical reportings and needs to be derived from existing statistics on a best effort basis. Moreover, many definitions of shadow banking exist** (see chapter 3). One such definition is the one of the Financial Stability Board (FSB), defining shadow banking as "*credit intermediation that involves entities and activities fully or partially outside the regular banking system*" and according to this FSB definition — the detailed calculations are reported in chapter 3 — **the total *financial* assets of the Belgian shadow banking sector amounted to € 128 billion at the end of 2016.** It consists mainly of money market funds and non-equity **investment funds** (€ 111 billion at the end of 2016) and — to a much more limited extent — of **firms engaged in loan provisioning that is dependent on short-term funding** such as leasing, factoring or consumer credit companies, not part of banking groups (€ 7 billion) and of **securitisation that is not retained on banks' balance sheets** (€ 10 billion). According to this FSB definition, the Belgian shadow bank sector thus only represents around 1/10 of the total financial assets held by the Belgian non-bank financial sector (€ 1,196 billion or 283 % of GDP at the end of 2016) and less than 1/20 of the assets of the total Belgian financial sector (including € 1,105 billion of bank sector assets). Under the alternative definition of the European Banking Authority (EBA), the Belgian asset management entities included in the shadow banking sector consist only of the Belgian Money Market Funds (MMFs) and the Belgian Alternative Investment Funds (AIFs) with a leverage that exceeds 300% or granting/purchasing loans (€ 2.4 billion at the end of 2016), meaning that under this framework the total assets of the Belgian shadow banking sector would be limited to € 19.4 billion at the end of 2016.

Starting from the work already undertaken in many European and international fora on shadow banks and asset management, **the NBB and FSMA 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.

Risks within the Belgian asset management and shadow bank sectors

Some of the **key findings** of this risk analysis as regards the **asset management sector** are:

- **The sector of the Belgian investment funds** (total net asset value of € 144 billion, of which € 127 billion in public open-ended funds) **is dominated by the UCITS** (€ 81 billion) **and the public open-ended AIFs** (€ 46 billion), which are mainly constituted of plain-vanilla investment funds, the pension savings funds (€ 18 billion) and the sub-sector of the structured funds (e.g. funds with capital protection). While the UCITS are regulated under a European harmonised regulatory regime that applies both at the level of the investment fund and the manager, the public open-ended AIFs are subject to a similar regulatory regime as the UCITS, which ensures an equal level of investor protection for Belgian retail investors irrespective of the form of the investment fund (see chapter 5). Through, among others, risk spreading, disclosure and organisation rules, **investor protection is the cornerstone of the European and Belgian regulatory regime that applies to the public investment funds and their managers.** The pension savings funds are subject to additional restrictions with regard to their investment policy (e.g. they cannot invest in derivatives, they must invest a minimum amount in certain securities and their exposure to other currencies than the euro should be within certain limits). **Investment funds with a potentially higher risk profile are targeted at professional investors and account for only a very small share of the Belgian investment fund universe** (e.g. AIFs without a specified regulated structure, allowing hedge fund strategies for example; less than € 1 billion).

Table: Breakdown of the total net asset value of Belgian public open-ended investment funds according to the investment policy category and legal form *(€ million, end 2016)*

	UCITS	**public open-ended AIF**	**Total**
Equity funds	34,116	470	34,586
Bond funds	5,467	3,971	9,438
Money market funds	756	1,184	1,940
Mixed funds	9,582	462	10,044
Funds of funds	26,092	15,259	41,351
Other funds	514	120	634
Structured funds	4,638	6,121	10,759
Pension savings funds	0	18,059	18,059
Total	**81,165**	**45,646**	**126,811**

Source: FSMA

- **As regards the liquidity risk in open-ended investment funds** (stemming from a potential mismatch in the liquidity of an investment fund's assets and its redemption profile), **several lines of defense are highlighted in the report**. **First**, the relevant legislation imposes detailed ***asset eligibility rules*** on Belgian public open-ended investment funds which strongly mitigate liquidity risk for these types of funds. These funds are in general only allowed to invest in listed financial instruments, deposits, units of other investment funds subject to similar (asset eligibility) rules, and derivatives, subject to certain restrictions. Real estate, commodities, unlisted securities, loans and other alternative asset classes are, in principle, excluded as eligible assets for public open-ended investment funds. **Second**, in the first half of 2016 the FSMA has conducted ***ad hoc stress tests*** focusing on the potential liquidity risk of a sample of 16 bond funds. **Third**, to ensure that asset managers and investment companies are fully capable to adequately deal with liquidity risk ***the FSMA has further taken the initiative to draft a proposal on legislative changes that make additional liquidity management tools available***: swing pricing, anti-dilution levies and redemption gates.

The **risk analysis** of the **Belgian shadow bank sector** (€ 128 billion according to the FSB definition), covering financial stability and considerations with respect to consumer protection, is based on a set of **credit, liquidity and leverage metrics** (developed in chapter 4 of the report) and **the key findings** are as follows:

- The main risk for the ***investment funds*** that are part of the Belgian shadow bank sector (€ 111 billion) is ***liquidity transformation*** and essentially reflects the redemption risk linked to the fact that the liabilities of the funds are mostly composed of units redeemable on a daily basis and are not covered by liquid assets. As highlighted above, the composition of the Belgian investment fund sector makes that this risk is mitigated by ***several lines of defense***.

- The risk metrics calculated for the ***Belgian finance companies*** reveal that their position with respect to liquidity transformation is rather comfortable and maturities on both sides of the balance sheet are relatively balanced. They do have ***leverage, but it is relatively contained*** compared to banking sector averages. Moreover, many of these entities are prudentially consolidated into banking groups and are therefore not part of the Belgian shadow bank system. If these entities are excluded, ***this sub-segment*** of the Belgian shadow bank system, which consists of finance companies such as leasing, factoring, consumer credit and mortgage companies and other finance companies, ***is small*** (€ 7 billion). However, the products they offer can expose already vulnerable borrowers to significant leverage.

- The risk metrics for the ***securitisations*** (of which only the non-retained securitisations are part of the Belgian shadow bank sector; € 10 billion) show that ***leverage is the most important risk***. Their ***position with respect to liquidity transformation is rather comfortable and maturities on both sides of the balance sheet are relatively balanced***. Given these limited maturity or liquidity mismatches, leverage should in principle be less of a problem as there will most likely not be a need to liquidate the assets.

Risks related to the interconnectedness with other sectors of the economy

Both the asset management and shadow bank sectors present, to varying degrees, *contractual* asset, liability or off-balance sheet links with other sectors of the economy, be they households, non-financial corporations, banks or other financial intermediaries such as insurance companies and pension funds (section 4.3). In some cases, there may also be non-contractual links, as in the case of the so-called step-in risk (implicit guarantees of a sponsor to asset management vehicles in order to avoid reputation risk for example). This interconnectedness **is not new**, and the mapping of these links as part of the work undertaken for this report has helped to demystify to a large extent the aggregate interlinkages that are shown in the whom-to-whom exposures of the financial accounts:

- For **the Belgian households and the non-financial corporations**, the links with shadow bank entities highlighted are mainly the expected ones (investments of households in investment funds; leasing, factoring and other forms of non-bank financing in the case of the non-financial corporations) and the **associated risks seem to be contained**. Belgian households that invest in investment funds are in general characterised by higher incomes which limits potential wealth effects linked to an important decrease in the asset values of the investment funds. Belgian non-financial corporations have thin connections with the asset management and shadow banking sector, both at the asset side and liability side.

- As expected, the interconnectedness with shadow banks and asset management activities is stronger for **the Belgian bank and insurance sector**, especially in case of « intra-conglomerate » entities. These links consist in the first place of contractual links and pertain for example to the funding received by banks from investment funds, asset management vehicles and shadow banks or to the role of banks as sponsor of these entities or as their derivative and securities lending counterparty. While **some potential microprudential attention points** have been identified and communicated to the microprudential supervisor, **no Belgian-specific issues were revealed at sector level or of systemic relevance, on top of the points of attention already being addressed at the European or international level**. This being said, interconnectedness will necessitate **further close monitoring**, especially for non-contractual links and related "step-in" risks.

Policy recommendations

This report on asset management and shadow banking proposes the following general and specific policy recommendations in order to enhance the risk monitoring of asset management, shadow banking and eventually of the Belgian financial sector as a whole.

General policy recommendations

1. Close data gaps and enhance information sharing

International bodies such as the FSB and the ESRB 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 and the NBB are currently reviewing the existing reporting requirements to improve the data availability and granularity and to increase data consistency in Belgium and in line with European developments. The enhanced reporting of shadow banking entities, shadow banking activities and their interconnectedness with banks will strengthen the risk monitoring of the Belgian financial sector as a whole.

Where relevant, and both at the macro and micro level, the NBB and the FSMA will enhance data sharing across both institutions, as well as their cooperation efforts in order to improve the quality and to extend the scope of the monitoring and supervision of the Belgian financial sector.

2. Monitor periodically the Belgian shadow banking sector

As statistics on the size and composition of the Belgian shadow banking sector and its interconnectedness with the Belgian financial sector are not readily available, the NBB and the FSMA will annually update the key statistics presented in this report. The annual monitoring of shadow banking should:

- take into account the different frameworks at a national or international level with regard to the delineation of shadow banking entities or activities;
- enhance the data quality for all entities and activities falling under the shadow banking scope;
- include new available data;
- enhance the granularity of existing data;
- enable the detection of emerging financial stability risks and investor protection issues.

A joint NBB/FSMA monitoring report shall be made available to all interested parties.

3. Monitor shadow banking in an international context

In view of the cross-border nature of shadow banking entities and activities, these entities and activities should be addressed as much as possible at an international level. Belgian shadow banking entities are interconnected with financial institutions and the real economy across the borders, as well as the other way around. This strong international dimension has three consequences:

- the authorities should continue 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). Where relevant, the NBB and the FSMA will continue to foster cooperation with each other within this context;
- in future reviews of gaps and potential enhancements to the existing monitoring and regulatory framework of shadow banking entities, the authorities should take into account the size and nature of these shadow banking entities, as well as the existing monitoring and regulation of the shadow banking, relative to that of other EU Member States;
- when developing and implementing regulations and policies related to shadow banking, the authorities should avoid to go beyond the requirements at the international/supranational level as far as new requirements impose additional costs or burdens upon the Belgian financial sector without clearly reducing risks.

Specific policy recommendations

4. Mitigate the concerns for liquidity risk for Belgian investment funds

The risk analysis for the Belgian shadow banking sector (chapter 4) and the stress testing exercise for bond funds (box 4.1) revealed that 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 the FSMA will continue its efforts to promote an effective liquidity risk management process and make the following additional liquidity management tools available for all Belgian investment funds:

(1) swing pricing;
(2) anti-dilution levies; and
(3) redemption gates.

A draft of legislation will soon be submitted to the Ministry of Finance.

5. Mitigate the concerns related to interconnectedness

The analyses on the contractual and non-contractual links between shadow banks and asset management vehicles on the one side and other sectors of the Belgian economy (banks, insurance companies and pension funds, households and non-financial corporations) on the other side have shown a high degree of interconnectedness in the case of links between entities belonging to the same financial group. While most of these links are of a contractual nature and are treated as any other link with a third party in the risk management of the entities involved and in the prudential frameworks set by regulators, the presence of high interconnectedness may also create potential additional non-contractual commitments — as for example explained in the Basel Committee approach to potential « step-in » risks as regards banks' exposures to sponsored unconsolidated entities. An important mitigant for this interconnectedness risk within financial groups or conglomerates is strong risk management as well as adequate supervision at the level of the financial group or conglomerate, which should take into account these potential spill-over effects. The competent supervisor should ensure that « step-in » risks are covered, assessed and integrated in the risk management of financial groups and conglomerates.

TABLE OF CONTENTS

LIST OF ABBREVIATIONS	
AIF	Alternative Investment Fund
AIFMD	Alternative Investment Fund Managers Directive
ABCP	Asset-Backed Commercial Paper
AuM	Assets Under Management
ASF	Available Stable Funding
CBFA	Banking, Finance and Insurance Commission
BCBS	Basel Committee for Banking Supervision
CMU	Capital Markets Union
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
CCCR	Central Corporate Credit Register
CCP	Central Counterparty
CEL	Code of Economic Law
CESR	Committee of European Securities Regulators
CPPI	Constant Portfolio Protection Insurance
CSA/ISDA	Credit Support Annex/International Swaps and Derivatives Association
EMU	Economic and Monetary Union
EF	Economic Function
EBA	European Banking Authority
EC	European Commission
ECB	European Central Bank
EEA	European Economic Area
EFAMA	European Fund and Asset Management Association
ELTIF	European Long Term Investment Fund
EMIR	European Market Infrastructures Regulation
EuSEF	European Social Entrepreneurship Fund
ESRB	European Systemic Risk Board
EU	European Union
EuVECA	European Venture Capital Fund
ETF	Exchange-Traded Fund
EGIF	Expert Group on Investment Fund liquidity and leverage
FCA	Financial Conduct Authority
FPS	Federal Public Service
FICOD	Financial Conglomerates Directive
FINREP	Financial Reporting framework
FSMA	Financial Services and Markets Authority
FSB	Financial Stability Board
FVC	Financial Vehicle Corporation
G-SIB	Global Systemically Important Banks
GDP	Gross Domestic Product
HQLA	High-Quality Liquid Assets
HLEG	High-Level Expert Group
HFCS	Household Finance and Consumption Survey
IORP	Institution for Occupational Retirement Provision
IOSCO	International Organisation of Securities Commissions
KIID	Key Investor Information Document
LCR	Liquidity Coverage Ratio

MiFID	Markets in Financial Instruments Directive
MIFIR	Markets in Financial Instruments Regulation
MMF	Money Market Funds
MMFR	Money Market Funds Regulation
MUNFI	Monitoring Universe of Non-bank Financial Intermediation
NAI	National Accounts Institute
NBB	National Bank of Belgium
NAV	Net Asset Value
NSFR	Net Stable Funding Ratio
NFC	Non-Financial Corporation
OFI	Other Financial Institution/Intermediary
OTC	Over-The-Counter
PRIIP	Packaged Retail and Insurance-based Investment Product
Privak/pricaf	Private equity closed-end investment fund
REIT	Real Estate Investment Trust
RTS	Regulatory Technical Standards
RSF	Required Stable Funding
RW	Risk Weight
SFT	Securities Financing Transactions
SFTR	Securities Financing Transactions Regulation
SSR	Short Selling Regulation
SRT	Significant Risk Transfer
STC	Simple, Transparent, Consistent/Comparable securitisations
STS(S)	Simple, Transparent and Standardised (Securitisations)
SSM	Single Supervisory Mechanism
SME	Small or Medium-sized Enterprise
SIV	Special Investment Vehicle
SPV	Special Purpose Vehicle
UCI	Undertaking for Collective Investment
UCITS	Undertaking for Collective Investment in Transferable Securities
VaR	Value at Risk
VNAV	Variable Net Asset Value
WAL	Weighted Average Life
WAM	Weighted Average Maturity

CHAPTER I: The development of market-based finance: general considerations

This report on shadow banking[1] and asset management — and associated risks for financial stability and investor protection in Belgium — **relates to the ongoing transition towards a more market-based financial system**, where more financial intermediation occurs outside the banking sector.

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 away from the banking system and towards non-bank financial institutions that are generally less complex, less leveraged and less subject to maturity mismatches than banks. Complementing and replacing credit intermediation through banks with market-based finance is beneficial from the perspective of financial stability. Market-based financing allows also the customers to contribute to the financing of economic activity. Such dynamics are also in line with the strategic objective of developing a more market-based EU financial system through the European Capital Markets Union. **Yet, if market-based financing is involved in bank-like activities such as maturity or liquidity transformation and creating or facilitating credit and leverage like banks, it can become a source of systemic risk(s),** both directly and through its interconnectedness with the banking system and other sectors of the economy. Moreover, when the consumers contribute to the financing of economic activity, it can become also an investor protection issue.

While many systemic crises are characterised by bank failures or bail-outs, with banks often playing an amplifying role, crises have not always been caused or triggered by banks. **In the recent global financial crisis, problems in non-banks and failures in market functioning also triggered or transmitted shocks across the financial system**. The securitisation of mortgages and the sale of these mortgage-backed securities to investors reduced banks' incentives to screen and monitor their mortgage lending. This contributed to overborrowing and subsequent problems in the funding markets for banks and other financial institutions exposed to these securities markets. Money markets became dysfunctional and the "breaking of the buck" of a money market fund (MMF) following the failure of Lehman Brothers played an amplifying role in the global financial crisis.

Asset management refers to the segment of the financial industry that is involved in the management of financial assets on behalf of investors, either through the collective management of an investment fund, in which many investors may have a stake, or through the discretionary management of an individual investor's portfolio. Those investors can be households, non-financial corporations or professional investors such as financial institutions. As a substantial part of their financial assets is managed by asset managers, the importance of the sector cannot be questioned. Investor protection is the cornerstone of the European and Belgian regulatory regime that applies to some parts of the asset management sector, namely the public investment funds and their managers. **An overview of the asset management sector in Belgium is given in chapter 2 of this report.**

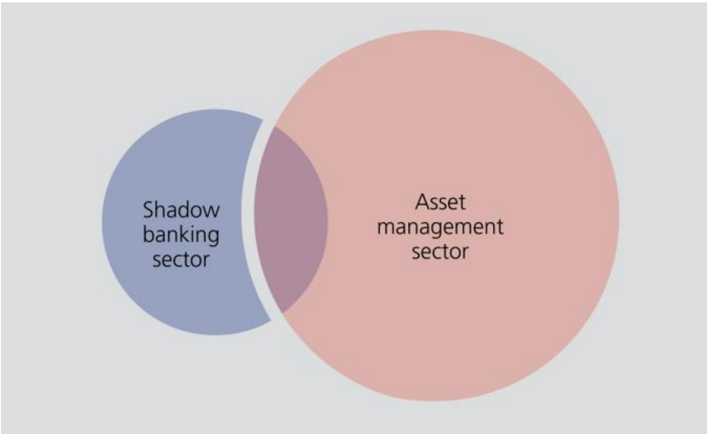
Shadow banking is a very broad, and fuzzy, concept. Many definitions exist, including that of the Financial Stability Board (FSB): "credit intermediation that involves entities and activities fully or partially outside the regular banking system". The two key aspects of this definition are the link with credit and the existence of an intermediary. **An overview of the Belgian shadow banking sector is given in chapter 3 of this report.** The term "shadow banking" moreover covers a highly diverse range of activities or entities, from securitisation to hedge funds or crowdfunding. An idea of the

[1] The use of the term "shadow banking" is not intended to cast a pejorative tone on this system of market-based finance. In this report, "market-based finance" and "shadow banking" are equally used.

heterogeneity of the activities and entities that have been indicated by different sources as falling in the category of shadow banking is given by the following examples: money market funds (MMFs), broker/dealers, real estate investment trusts (REITs), securitisation special purpose vehicles (SPVs), special investment vehicles (SIVs), asset-backed commercial paper (ABCP) vehicles, hedge funds, finance companies, derivative product companies, repos and securities lending.

An analysis 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 is developed in chapter 4 of the report. Whatever the framework that is used to define the shadow banking and asset management sectors, both sectors only overlap to some extent (chart 1.1), so their monitoring frameworks (also described in chapter 4) should be kept separate. They also present — to varying degrees — asset and/or liability links with other sectors of the economy, be they households, non-financial corporations, banks, insurance companies or pension funds. This interconnectedness with other sectors of the economy is analysed in section 4.3.

Chart 1.1: Shadow banking and asset management



Sources: FSMA, NBB.

Many of the risks associated with shadow banking resemble the risks faced by traditional banks, but the importance of particular risks, as well as the benefits, will vary according to the particular activity, institutional setup, and time period. The size of the shadow banking sector relative to banking sector will also likely influence net benefits and costs, as will the degree of concentration of shadow banking entities. **Shadow banking can thus be highly beneficial or give rise to a high degree or systemic risk,** depending upon the particular combination of the above elements. This helps to explain why there is no inconsistency between concern over potential risks posed by shadow banking within the EU and a belief in the benefits of the European Capital Markets Union.

Asset management and investment funds provide social benefits by expanding the range of savings and investment products for investors. They may also present potential risks in terms of investor protection or financial stability, e.g., linked to agency problems or to the linkages with banks, especially in cases where the asset management fund is sponsored by the bank. Risks (in particular so-called "step-in" risks) associated with the interconnectedness between these asset management entities and their sponsors (often banks) are therefore also a current focus of the Basel Committee for Banking Supervision (BCBS).

The existing regulations, at national, European and international levels, cover many of the risks (in particular those stemming from contractual links) and are used by the national regulators to closely monitor the Belgian shadow bank and asset management sectors. With the contribution of Belgian authorities, efforts are under way to further strengthen the micro- and macroprudential monitoring and regulation framework and the consumer protection at the European and international level. The **regulation of asset management and shadow bank entities and activities is discussed in chapter 5.**

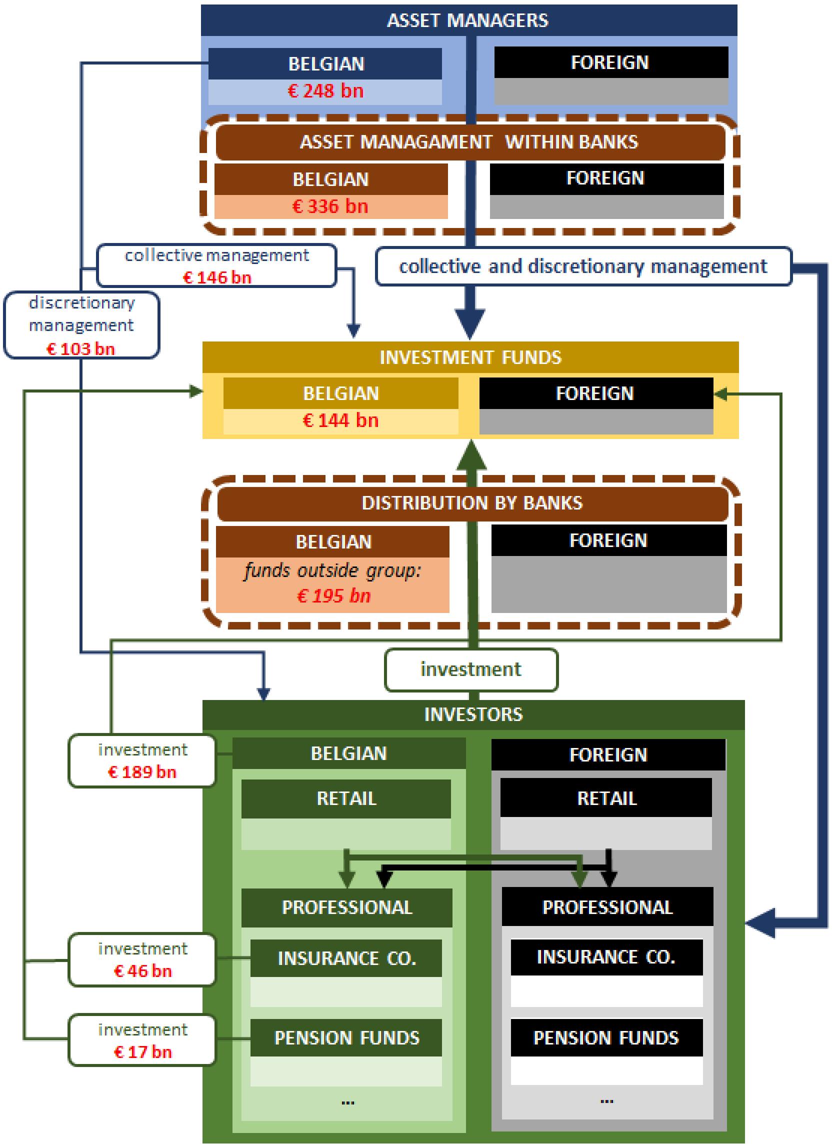
The **final chapter 6 concludes with a number of key findings, policy conclusions and recommendations.** The latter assess the need for improving data availability and the opportunity to implement new policy requirements to mitigate potential systemic risks and consumer protection issues and to enhance the current monitoring of the asset management and shadow bank sectors.

CHAPTER II: Overview of the Belgian asset management sector

2.0 Introduction

This chapter provides a description and an overview of the asset management sector in Belgium, 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. Chart 2.1 presents a schematic overview of the asset management 'ecosystem'.

Chart 2.1: Schematic overview of the Belgian asset management sector



Source: FSMA, NBB

As shown in chart 2.1, the asset management sector is determined by three types of actors (entities) and their interactions: investment funds, investors and asset managers. Investment funds are at the core of the asset management sector. They are collective investment undertakings that raise capital from a number of different investors, which is in turn invested, by asset managers, for the benefit of those investors.

The measurement of the different facets of the asset management sector in Belgium is based on a combination of financial accounts data of the National Accounts Institute (NAI), FSMA reporting data of the entities under its supervision and prudential supervisory data available at the NBB on banks and insurance companies. The chapter also discusses asset management-related activities in Belgium, such as the distribution of investment funds. Table 2.1 presents the gross statistics of the assets involved in the asset management entities and activities, as reviewed in the following sections.

Table 2.1: Gross statistics of asset management activities relevant for Belgium *(€ billion, end 2016)*

	NAV[1]	**AuM[2]**	**Assets involved[3]**	**Investment[4]**
Belgian investment funds	**144**			
Public	127			
Non-public	17			
Belgian asset managers		**248**		
Assets under collective management		146		
Assets under discretionary management		103		
Assets under investment advice		2		
Assets generating fee and commission income for Belgian banks			**531**	
Assets managed in the bank			336	
Collective management			193	
Discretionary management			143	
Collective investment products distributed but not managed			195	
Foreign investment funds held by Belgian residents				**189 - 199**
Households				100
Other investors				89
Investments of Belgian insurance companies in investment funds				**46**
Investments of Belgian pension funds in investment funds				**17**

Source: FSMA, NBB

Notes:This table presents the gross statistics that are discussed in this report concerning the assets involved in the Belgian asset management industry and asset management related activities in Belgium. 1. For the Belgian investment fund industry the net asset value (NAV) is reported. 2. For Belgian asset managers the assets under management (AuM) are reported. 3. For Belgian banks the assets involved in asset management activities that generate fee and commission income are reported. 4. For foreign investment funds held by Belgian residents the size of the holdings by households and other investors is reported; for insurance companies and pension funds, the size of their holdings of investment funds is reported.

Section 2.1 focuses on the composition of the Belgian investment fund sector.

Section 2.2 discusses the activities of Belgian asset managers. In addition to the collective management of investment funds, asset managers also engage in the discretionary management of client portfolios.

The investor base of investment funds consists of a variety of different types of investors, both retail (e.g. households or non-financial corporations) and professional investors, such as insurance companies and pension funds. Professional investors often also attract retail investors by issuing other types of financial products, such as class 23 contracts. **Sections 2.5 and 2.6** discuss the importance of investment funds for insurance companies and pension funds, respectively.

The banking sector has a dual role with regard to the asset management sector. On the one hand, asset management activities may take place *within* banks, as asset managers may be part of a larger banking group. Furthermore, banks may engage in asset management themselves, e.g. by performing discretionary portfolio management for their private banking clients. On the other hand, banks are generally the largest distributors of investment fund units to investors. **Section 2.4** discusses the importance of asset management activities for Belgian banks.

As the asset management sector is an international sector, the different actors often interact across borders. For instance, Belgian asset managers may manage foreign investment funds or portfolios of foreign investors, and vice versa, while Belgian banks may distribute both Belgian and foreign investment funds. **Section 2.3** therefore briefly discusses the importance of foreign investment funds distributed in Belgium.

2.1. Belgian investment funds

2.1.1. Investment fund classification

Investment funds can broadly be defined as collective investment undertakings which raise capital from a number of investors with a view to investing it in accordance with a defined investment policy for the benefit of those investors[2]. The investment fund industry comprises a variety of fund types which can have quite different characteristics. For the purpose of this overview investment funds are distinguished on the three dimensions that are most important to determine the regulatory regime applicable to the fund: (1) their investor type, in particular whether or not there is an intention to offer units or shares of these investment funds to the public[3], (2) the type of assets in which these investment funds are allowed to invest, and (3) whether they are open- or closed-ended. Table 2.2 provides an overview of the different investment fund types that are possible in Belgium, as well as a summary of their characteristics, the competent authority, the number of registered investment funds in Belgium and the size of their net assets. Chart 2.2 shows a graphical summary of the different types of Belgian investment funds and chart 2.3 shows the distribution of the net asset value for each of these types.

A first distinction to classify investment funds is by type of investors. Investment funds can be either offered to the general public (including retail investors) or not. If there is an intention to publicly offer units of a Belgian investment fund, it is classified as a public investment fund. These <u>public investment funds</u> need to be set up within a regulated structure[4], i.e. an investment fund set up within the bounds a specific regulatory regime at the fund level. Public investment funds are directly supervised by the FSMA. Public investment funds can either be set up as UCITS or alternative investment funds (AIFs).

---

2 This definition is similar to the definition of article 4 (1) (a) from Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers (AIFMD).

3 An offer made to the public is a communication to persons in any form and by any means, presenting sufficient information on the terms of the offer and the securities to be offered, so as to enable an investor to decide to purchase or subscribe to those securities, and which is made by a collective investment undertaking, by a person authorised to dispose of the securities in question, or for their account, or an admission to trading on a multilateral trading facility that is open to the public. A non-public offering of units in investment funds is required to be at least of a size of € 250,000 for each investor.

4 Similarly, units of foreign investment funds can only be publicly offered in Belgium if they are within the scope of a specific regulatory regime, e.g. UCITS.

Table 2.2: Investment fund types in Belgium

	Main type of assets	Investor type			Open-/ closed-ended	Competent authority	Registration (other than FSMA)	Registered (sub-)funds (31/12/2016)	Net asset value (€ million, 31/12/2016)
		Public offer	Limited retail	Professional investors					
UCITS	Financial instruments	Yes			Open	FSMA		71 (627)	81,165
AIF									
Public open-ended AIF	Financial instruments	Yes			Open	FSMA		57 (540)	45,646
Institutional open-ended AIF **[1]**	Financial instruments			Yes	Open		FPS Finance	31 (145)	*16,210* **[3]**
Public real estate fund	Real estate	Yes			Closed	FSMA		0	0
Institutional real estate fund	Real estate			Yes	Closed	FSMA		0	0
Specialised real estate fund	Real estate			Yes	Closed		FPS Finance	0	0
Public *privak/pricaf*	Private equity	Yes			Closed	FSMA		1	135
Private *privak/pricaf* **[1]**	Private equity		Yes	Yes	Closed		FPS Finance	41	*59* **[3]**
Public starter fund	Start-ups	Yes			Closed	FSMA			
Private starter fund	Start-ups		Yes	Yes	Closed		FPS Finance		
EuVECA	Venture capital		Yes	Yes	Closed	FSMA		0	0
EuSEF	Social entrepreneurship		Yes	Yes	Closed	FSMA		0	0
ELTIF (retail investors)	Long term investments	Yes			Closed	FSMA		0	0
ELTIF (professional investors)	Long term investments			Yes	Closed	FSMA		0	0
AIF without specific regulated structure	No restrictions		Yes	Yes	Both			*17 (21)* **[2]**	*855* **[2]**
Total								**218 (1,375)**	***144,070***

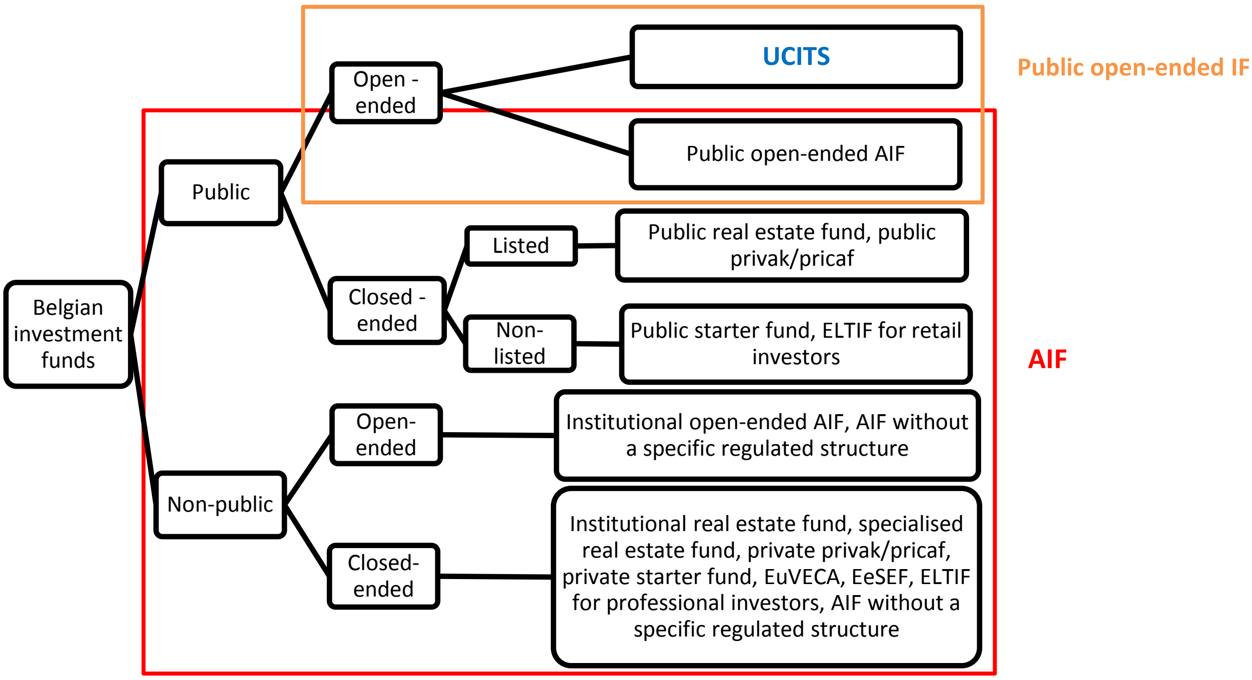
Notes:

This table presents different types of investment funds that can be established in Belgium based on the regulatory regime applicable to the investment fund. For each of the identified investment fund types the table shows the main types of assets in which these funds invest, their investor types (whether a public offering is possible, whether shares can be offered to retail investors in a limited way, or whether shares can be only be offered to professional investors), whether the type of investment fund is open-ended or closed-ended, the competent authority (if any), whether these types of funds are registered in Belgium and the estimated size of their net asset at the end of 2016 (source: FSMA, FPS Finance). **[1]** Not all entities that take the legal form of an institutional open-ended AIF or a private privak/pricaf under Belgian law are classified as AIFs under the provisions of AIFMD, as they can be within scope of an exception regime. **[2]** The number of Belgian AIFs and their net asset value for which Belgian managers of AIFs reported to the FSMA on 31 December 2016 and which are not registered as institutional open-ended AIF or private privak/pricaf. **[3]** The estimated net asset value of the institutional open-ended AIFs and private privaks/pricafs is a lower bound. It is the net asset value of either the institutional open-ended AIFs or the private privaks/pricafs that are: (1) classified as AIFs under the AIFMD, and (2) that are either internally managed or have a Belgian designated management company (and for which these managers are authorised by the FSMA), and as such are AIFs for which the FSMA is the competent authority receiving the reports concerning these AIFs under the reporting requirements of article 24 of the AIFMD.

Non-public investment funds are always set up as AIFs[5]. These non-public AIFs generally target professional investors only. However, given certain restrictions, for some types of non-public AIFs units can also limitedly be offered to retail investors. Non-public AIFs can either be set up within the bounds of a specific regulatory regime or as AIFs without a specific regulated structure. In the former case additional fund-level regulation applies to these AIFs (on top of the AIFMD). In general, non-public AIFs are not supervised directly (at the level of the fund), but their manager is within the scope of the AIFMD. This means that they should have appropriate risk management and internal controls to ensure that all material risks are properly identified, assessed, monitored and controlled. The manager should be able to demonstrate that appropriate and effective liquidity management policies and procedures are in place. Further, regular stress tests of the portfolio under various market scenarios are required as a way to identify corresponding risks. Authorised managers[6] are supervised either by the FSMA (for Belgian managers, see section 2.2) or the competent authority of the manager's home country (for foreign managers).

A second distinction between different types of investment funds is based on their investment policy, and in particular the types of assets in which these investment funds are allowed to invest, such as financial instruments, real estate, private equity or other types of assets.

Chart 2.2: Overview of investment fund types in Belgium



Source: FSMA

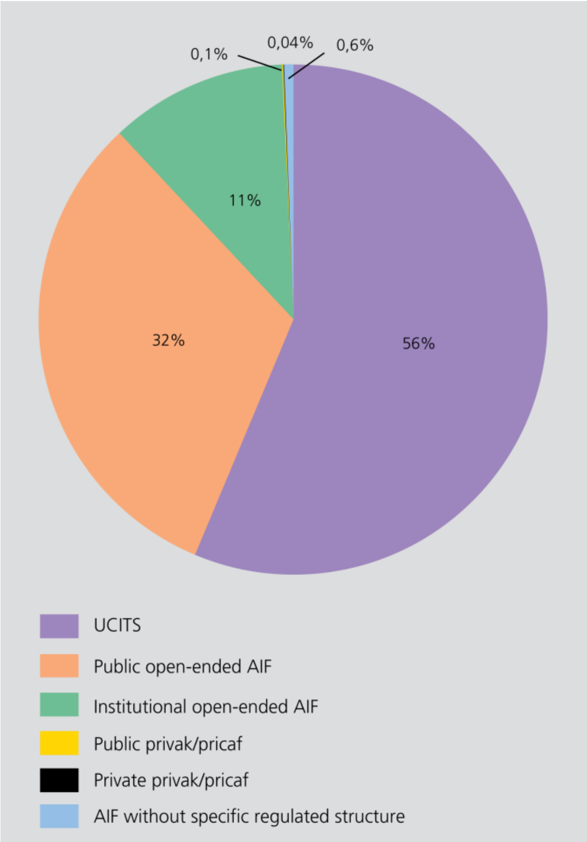
The third distinguishing characteristic (i.e. whether the fund type is open- or closed-ended) is somewhat related to the nature of its investments. Public investment funds are subject to specific asset eligibility rules. Public open-ended investment funds are only allowed to invest in asset types

5 All investment funds that are not authorised pursuant to article 5 of Directive 2009/65/EC the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS), are classified as alternative investment funds or AIFs.

6 'Small AIF managers' are only registered and not authorised, provided that they do not manage a public AIF. These small AIF managers consist of managers with total assets under management below certain thresholds, and given restrictions on the use of leverage within the AIF(s) under their management.

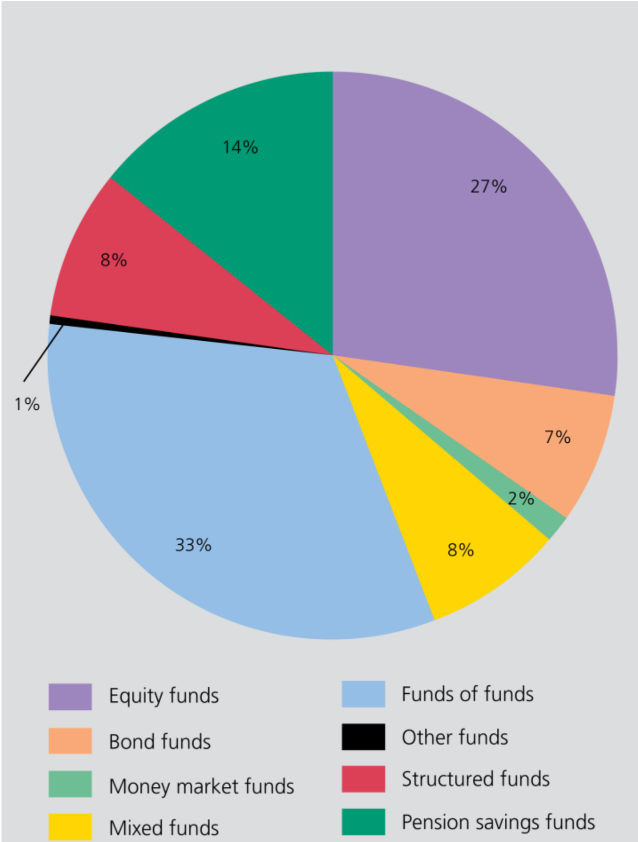
that are considered to be more liquid, i.e. mainly listed financial instruments and deposits. These asset eligibility constraints are, among others, intended to ensure that these investment funds can meet their redemption requests. Many of these open-ended investment funds offer a daily redemption, with a legal minimum of a bi-weekly redemption. Public AIFs that intend to invest in less liquid types of assets (real estate or private equity) need to be established as closed-ended entities. For non-public AIFs, a number of different types or labels exist, depending on their intended investments: financial instruments, private equity, venture capital, start-ups, real estate, long term investments or social entrepreneurship. For AIFs without a specific regulated structure, generally no restrictions on their investment policy apply, except restrictions that apply indirectly through the regulation applicable to the manager (as discussed above). As can be seen from table 2.2, the vast majority of the Belgian investment fund industry consists of investment funds that invest mainly in financial instruments.

***Chart 2.3: Breakdown of the NAV of Belgian investment funds according to investment fund type** (end 2016)*



Source: FSMA

***Chart 2.4: Breakdown of the NAV of public open-ended investment fund types by investment fund policy** (end 2016)*



Source: FSMA

2.1.2. *Belgian public open-ended investment funds*

Public open-ended investment funds[7], i.e. UCITS and public open-ended AIFs, represented around 127 billion euro, or about 88% of the industry, at the end of 2016[8]. UCITS are the only type of public open-ended investment funds for which a European harmonised regulatory regime applies both at the level of the investment fund and the manager. The UCITS framework also encompasses a passport regime through which units of these funds can be publicly offered across borders within the European Economic Area (EEA). Therefore, a large part of the European investment fund industry consists of UCITS funds. The European Fund and Asset Management Association (EFAMA) estimates that 8,658 billion euro, or about 61% of the European investment fund net assets, consists of UCITS at the end of 2016[9]. Similarly, UCITS represent 64% of the Belgian segment of publicly offered open-ended investment fund net assets. The remaining share of net assets in this segment are held by **public open-ended AIFs**. These AIFs **are subject to a similar regulatory regime as UCITS**, which ensures an equal level of investor protection for Belgian retail investors irrespective of the form of the investment fund (UCITS or AIF).

The relative importance of public open-ended AIFs within this segment of the Belgian investment fund industry has been declining over the past years. Historically many structured sub-funds[10] (e.g. capital protected sub-funds)[11] were not established as UCITS, as these were generally intended for the Belgian retail market and no European passport was needed. As the number of structured sub-funds has been declining over the past years, so has the importance of public open-ended AIFs. Structured sub-funds represented about € 11 billion of net assets at the end of 2016 (8% of public open-ended investment fund industry). Structured sub-funds generally invest in fixed-income securities and/or deposits on the one hand, and derivative instruments on the other hand. The former is intended to preserve the invested capital (to a certain prescribed extent), while the latter is used to generate the promised payoff depending on the evolution of (an) underlying asset(s) (see box 2.1 for more information on structured products).

The number of AIFs has also declined in anticipation of the entry into force of the AIFMD (targeting managers of AIFs) during the course of 2014, as a number of AIFs were converted to UCITS. **An important remaining category of Belgian publicly offered AIFs are the pension savings funds (€ 18 billion at the end of 2016), an investment for which many Belgian residents receive tax incentives.** These pension savings funds are subject to additional restrictions with regard to their investment policy (e.g. they cannot invest in derivatives, they must invest a minimum amount in certain securities and their exposure to other currencies than the euro should be within certain

---

7 These public open-ended investment funds can take the legal form of an investment company or a common fund. Common funds are managed by a management company, while many investment companies have designated a management company as well. Nevertheless, 16 out of 89 of these investment companies are self-managed. These self-managed investment companies are subject to similar organisational requirements as asset management companies (see section 2.2).

8 The reported total size of the Belgian investment fund industry is an estimated lower bound, as for some non-public investment funds statistics are not reported to the FSMA (see below). However, the total size of the industry is in line with statistics from the national accounts data from the NBB.

9 EFAMA Quarterly Statistical Report Q4 2016

10 Many investment funds are set up as a so-called umbrella funds, containing different compartments or sub-funds. The umbrella fund is then the legal entity under which each of its sub-funds has separated assets and its own defined investment policy. Investors have a stake in the equity of the sub-fund rather than the umbrella fund.

11 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 for more information on structured products.

limits). They generally invest directly in different types of financial instruments such as listed equity, bonds or money market instruments.

Table 2.3 provides a breakdown of the net asset value of the Belgian public open-ended investment funds according to the investment policy category and the legal form. It shows that about 40% of the Belgian public open-ended investment fund industry focuses mainly on direct investments in one of the following three asset classes: listed equity (€ 35 billion at the end of 2016), bonds (€ 9 billion at the end of 2016) or money market instruments (€ 2 billion at the end of 2016). In addition, a number of Belgian public open-ended investment funds invest directly in a mix of different asset classes (€ 10 billion at the end of 2016).

However, **the funds of funds** (i.e. investment funds that invest indirectly in financial assets by investing mainly in other investment funds) **are the largest category of Belgian public open-ended investment funds.** Their combined net asset value of € 41 billion represents about 33% of the industry. The estimated size of the Belgian investment fund industry by its net asset value is therefore not necessarily a reflection of the size of its asset holdings, i.e. **there is a double-counting insofar as Belgian funds of funds are investing in other Belgian funds**.[12]

Table 2.3: Breakdown of the total NAV of Belgian public open-ended investment funds according to investment policy category and legal form *(€ million, end 2016)*

	UCITS	Public open-ended AIF	Total
Equity funds	34,116	470	34,586
Bond funds	5,467	3,971	9,438
Money market funds	756	1,184	1,940
Mixed funds	9,582	462	10,044
Funds of funds	26,092	15,259	41,351
Other funds	514	120	634
Structured funds	4,638	6,121	10,759
Pension savings funds	0	18,059	18,059
Total	**81,165**	**45,646**	**126,811**

Source: FSMA

Within these categories of investment funds that invest in different asset classes, investment funds can still vary to a significant degree based on their investment strategy. For instance, investment funds **can be passively managed**, i.e. designed to track the performance of a benchmark financial index, **or actively managed**, leaving discretion to the portfolio manager. Portfolio managers of actively managed investment funds may try to beat the performance of a benchmark financial index. Furthermore, investment funds can vary strongly in the way they intend to reduce their risk.

12 Do note that the concern for inflation of the figures by double-counting due to the existence of several layers of fund of funds is strongly mitigated as Belgian public open-ended investment funds are only allowed to invest in other investment funds that are limited (by their constitutional documents) to invest only up to a maximum of 10% of their net asset value in other funds.

2.1.3. EU Capital Markets Union: new initiatives

A number of new AIF types have been designed against the background of the EU Capital Markets Union (CMU). The restructuring of bank balance sheets since the financial crisis gave the opportunity to some investment funds to become the provider of financing for certain companies and to support the real economy. At the same time the low yield environment enabled funds to provide an attractive investment opportunity.

T**he CMU plan to mobilise capital includes a broad set of initiatives in order to strengthen the real economy and stimulate investments. One of the goals is to diversify the sources of financing within the EU, i.e. to make companies and infrastructure projects less dependent on bank financing by making it easier to attract funding from other sources.** The Commission has adopted regulations that created three types of labels for AIFs: **European Venture Capital Funds (EuVECAs), European Social Entrepreneurship Funds (EuSEFs) and European Long Term Investment Funds (ELTIFs)**. EuVECAs and EuSEFs are only meant for professional investors, while ELTIFs for retail investors can also be publicly offered, subject to additional requirements.

EuVECAs are AIFs that invest in venture capital, while EuSEFs invest in social enterprises, i.e. enterprises set up with the explicit aim to have a positive social impact and address social objectives, rather than only maximising profit. ELTIFs are AIFs that invest in long-term investments, such as private equity, public real estate or infrastructure (e.g., transportation, energy, and telecom) and are established with a fixed maturity date. There are currently no Belgian registered EuVECAs, EuSEFs or ELTIFs.

Against the background of the CMU, Belgium has adopted a specific legislation for funds investing in start-ups: starter funds. Funds that adopt the starter fund status have to invest at least 80% in shares of unlisted companies that are maximum 4 years old and they are subject to diversification requirements and restrictions on the use of derivatives and borrowing. There are also specific disclosure requirements for public starter funds. There are currently no starter funds registered yet as the relevant legislative framework has only recently entered into force.

2.1.4. Other AIFs

Some closed-ended types of AIFs can be publicly offered in Belgium, in particular public privaks/pricafs and public real estate funds[13]. Of these fund types currently only one public privak/pricaf is registered. Public privaks/pricafs are required to invest in financial instruments that are issued by non-listed companies, growth companies or shares issued by other venture capital funds that have a similar investment policy, and are subject to diversification rules. Their shares have to be listed, which enhances their liquidity.

The landscape for real estate funds has changed during the last years. In anticipation of the entry into force of the Law of 19 April 2014 on alternative investment funds and their managers the Belgian legislator has adopted **legislation that allowed, under certain conditions, the existing real estate funds to opt for the regime of Belgian REITs**. These Belgian REITs do not classify as AIF. During the course of 2014 all existing real estate funds could adopt this status, leaving no public or institutional real estate funds. The Belgian REITs are also supervised by the FSMA. **In 2016 a new regulation entered into force which allowed for UCIs that invest in real estate to adopt the status**

13 Funds can also opt for the status of institutional real estate fund. There is currently no institutional real estate fund registered.

of so-called specialised real estate funds. As of 20 June 2017 there are 6 specialised real estate funds registered with the FPS Finance.

An important category of the non-public AIFs are the institutional open-ended AIFs, with an estimated size of around € 16 billion (lower bound)[14]. They invest mainly in financial instruments, similar to the public open-ended AIFs. **They are established for professional or institutional clients**, e.g. insurance companies or qualified companies. One of the potential benefits for these clients is that the **investment policy can be tailored to their specific needs**. Another category of non-public AIFs are the **private privaks/pricafs**, with an estimated size of around € 59 million (lower bound)[15]. Both the institutional open-ended AIF and the private privak/pricaf are registered at the Federal Public Service (FPS) Finance.

A final category of AIFs are those for which the manager has not opted for a specific regulated structure. This type of AIF is non-public by nature and can potentially encompass of very broad set of investments, not limited to financial assets, real estate or private equity, but also including alternative asset classes. Furthermore, a diverse set of investment strategies is possible, including hedge fund strategies. **This category of investment funds is relatively small in Belgium, with an estimated size of 855 million euro (lower bound).** Their investment strategies consist mainly of fund of funds, private equity, venture capital, fixed income, equity or loans.

2.2. Belgian asset managers

This section on the Belgian asset managers **focuses on the following two types** of companies governed by Belgian law and authorised in Belgium**:**[16]

(1) **UCITS management companies**;[17] and
(2) **AIF managers**.[18]

In general, these **asset managers can perform three types of asset management on behalf of investors**:

- First, an asset manager may manage a portfolio of UCITS and/or AIFs in compliance with the requirements set out in the applicable legislation and in accordance with the investment

14 Not all entities that take the legal form of an institutional open-ended AIF or a private privak/pricaf under Belgian law are classified as AIFs under the provisions of AIFMD, as they can be within scope of an exception regime. Only if an investment fund is classified as an AIF under AIFMD, and when the manager is authorised by the FSMA, the manager has to report information to the FSMA concerning these AIFs. As such, the estimated size of the net assets constitutes only those that qualify as AIFs under AIFMD, and which are managed by a manager authorised by the FSMA, and it is thus a lower bound.

15 Ibid.

16 In addition, asset management services are also provided by portfolio management and investment advice companies, and by stockbroking firms, as referred to in the Law of 25 October 2016 on access to the business of investment services and on the status and supervision of portfolio management and investment advice companies. As the assets under management by these companies are relatively limited, these are not further discussed in this report. As of 31 December 2016 there were 19 portfolio management and investment advice companies registered in Belgium with a total of 1.1 billion euro of assets under collective management, 4.7 billion euro of assets under discretionary management and 1.3 billion euro under investment advice. At the same moment, there were 20 stockbroking firms registered in Belgium with a total of € 3.9 billion of assets under discretionary management and € 2.6 billion of assets under investment advice. These numbers are not included in table 2.4.

17 As referred to in Article 3, 12° of the Law of 3 August 2012 on institutions for collective investment that fulfil the conditions of Directive 2009/65/EC and institutions for investment in receivables.

18 As referred to in Article 3, 12° of the Law of 19 April 2014 on alternative investment funds and their managers.

policy as stated in the prospectus and the key investor information document (KIID) of the investment funds. The portfolio of these investment funds comprises various financial instruments, potentially including other AIFs and UCITS. The investment funds managed by the asset manager can include both public investment funds, as well as non-public AIFs. The asset manager can manage both Belgian and foreign investment funds. The management of a UCITS or AIF itself is referred to as *collective management*.[19]

- Second, an asset manager may manage assets in the form of *discretionary portfolio management*, i.e. the management of individual client portfolio.[20] When providing discretionary portfolio management, the asset manager manages the investment portfolio of the client in accordance with the written arrangements agreed with the client in advance, based on the client's personal objectives and risk profile. The investment portfolio may be made up of various financial instruments, including, for instance, equity, bonds, units in UCITS or units in AIFs.
- Finally, an asset manager may also offer *investment advice*. When offering investment advice,[21] the manager must inform the client of the investments that may be in his interest to include in the portfolio, based on the personal objectives and risk profile of the client. The client then personally takes the decision whether or not to invest.

The total assets under management by the nine Belgian asset managers amounted to € 248.3 billion, of which € 145.7 billion were in the form of collective investments and € 102.5 billion in the form of discretionary management, while the assets for which they provide investment advice amounted to 2.4 billion euro[22] as of 31 December 2016, as mentioned in table 2.4. Seven asset managers have a double authorisation, i.e., they are allowed to manage both UCITS and AIFs.

Table 2.4: Number of authorised Belgian UCITS and AIF management companies and their total assets under management and assets under investment advice *(€ billion, end 2016)*

Number	9
Assets under management	**248.3**
Collective management	145.7
Discretionary management	102.5
Assets under investment advice	2.4

Source: FSMA

The total value of assets under management refers to the amount that is in fact managed in Belgium by the Belgian asset managers.[23]

19 For the sake of completeness, is should be mentioned that a portfolio management and investment advice company or a stockbroking firm can only manage the investment portfolio of an AIF or a UCITS if the AIF/UCITS management company delegates that task to the portfolio management and investment advice company. Such a delegation is subject to strict conditions, which are set out in the UCITS/AIF legislation.

20 As referred to in Article 3, 43°, a) of the Law of 19 April 2014 on alternative investment funds and their managers.

21 As referred to in Article 3, 43°, b) of the Law of 19 April 2014 on alternative investment funds and their managers.

22 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.

23 The figure therefore excludes 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. These exclusions explain the differences as compared to the amounts stated under section 2.4, i.e. assets under management reported under section 2.4 include

2.3. Foreign investment funds distributed in Belgium

The different types of foreign investment funds that can be distributed in Belgium (either to retail investors or to professional investors) **are listed in table 2.5. Investment funds from other Member States of the EEA that can be publicly offered consist of UCITS and AIFs.** As mentioned in section 2.1 above, 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 with the FSMA before their units can be distributed in Belgium.** At the end of 2016 3,819 UCITS sub-funds from other Member States of the EEA were notified with the FSMA. 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.

Managers of open-ended AIFs from other Member States of the EEA that have the intention to publicly offer units in Belgium need to register these AIFs with the FSMA. These AIFs need to comply with the relevant Belgian legislation in order to ensure an equal level of investor protection and a level playing field. The FSMA monitors the activities of these public open-ended AIFs from other Member States of the EEA e.g. through additional reporting requirements. Five open-ended public AIFs from other Member States of the EEA were registered with the FSMA at the end of 2016 (of which 40 sub-funds are registered). Their net assets amount to about € 5.6 billion.[24]

Table 2.5: Foreign investment fund types in Belgium

	Competent authority	Registered/ Notified (sub-) funds (31/12/2016)	Net asset value (€ billion, 31/12/2016)
UCITS	Home NCA	528 (3,819)	N.A.
AIF			
Public open-ended AIF	Home NCA, FSMA	5 (40)	5.624
EuVECA	Home NCA	(51)	N.A.
EuSEF	Home NCA	(1)	N.A.
ELTIF (retail investors)	Home NCA	0	N.A.
ELTIF (professional investors)	Home NCA	N.A.	N.A.
Other AIF	Home NCA	N.A.	N.A.

Source: FSMA

Managers of foreign AIFs non-marketed to the public need to follow a notification procedure as well, depending on the type of AIF that is offered. Currently 51 AIFs with the EuVECA label and one AIF with the EuSEF label are notified with the FSMA.

Although the NAV of foreign investment funds distributed in Belgium is not as such available, data exist on the amount of foreign investment funds which is *held by Belgian residents*. The share of those foreign investment funds managed by Belgian asset managers is not known. According to the

the activities of Belgian and foreign asset managers that are consolidated in the Belgian bank as well as the assets under discretionary management by the bank itself, and excludes the assets under management by Belgian asset managers not consolidated in the Belgian bank (see chart 2.1).

24 This amount is the total size of their net assets, and the value of their shares 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.

Financial Accounts data investments by Belgians in foreign funds amounted to € 199.3 billion at the end of 2016. **According to the securities holdings statistics** that allow for a breakdown by holding sector and by issuing country, **investments by Belgians in foreign funds amounted to € 188.7 billion at the end of June 2016,[25] of which € 99.6 billion is estimated to be held by households. The major share of foreign investment funds held by Belgians are Luxembourg funds**, more specifically, about € 144.2 billion is estimated to be issued by investment funds domiciled in Luxemburg (see table 2.6).

Table 2.6: Investments by Belgian residents in foreign investment funds *(€ billion, end June 2016, based on securities holdings statistics)*

	MMFs	Non-MMF investment funds	Total
Total	**13.8**	**174.9**	**188.7**
By holding sector			
Households	1.6	98.0	99.6
Other non-financial investors (incl. general government)	4.5	8.2	12.7
Banks	0.0	0.1	0.1
Non-MMF investment funds	3.0	36.3	39.3
Insurance corporations	3.2	20.7	23.9
Pension funds	0.2	11.1	11.2
Other financial corporations	1.4	0.6	2.0
By issuing country			
DE	0.0	10.2	10.2
FR	9.0	11.5	20.5
IE	0.0	10.1	10.1
LU	4.8	139.4	144.2
NL	-	0.7	0.7
Other countries	0.0	2.9	2.9

Source: NBB, ECB (CSDB)

25 The difference between the two statistics remains unexplained.

2.4. Belgian banks and asset management activities

Belgian banks have to report to the NBB, in the context of the consolidated financial reporting framework (FINREP[26]), their fee and commission income as well as the assets involved in the activities which generate such income, split out by category of activity. As such, some interesting details regarding **the asset management activities of the Belgian banking sector** (discretionary management, distribution of investment funds …), *see section 2.1.1*, as well as **the "auxiliary" services they provide to the asset management sector** (administration for investment funds, custody of client assets …), *see section 2.1.2*, are available. As expected, there is a certain overlap between the amount of assets managed within or distributed by Belgian banks on the one hand, and the AuM of Belgian asset managers and/or the NAV of Belgian investment funds on the other hand. However, the amounts mentioned in this section are larger, since, for example, foreign investment funds which are not managed by Belgian entities but which are distributed to clients of Belgian banks are in the scope as well. This section thus presents yet another yardstick for assessing the total size of the Belgian asset management sector.

2.4.1. Belgian banks' asset management activities

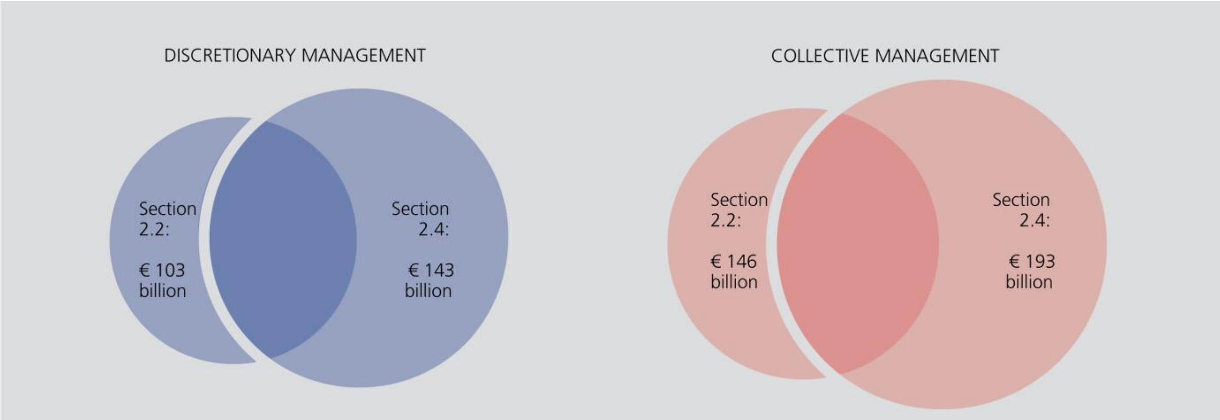
If the yardstick used to measure the size of the Belgian asset management sector is the assets generating fee and commission income for consolidating Belgian banks, the maximum amount reached at the end of 2016 is € 531 billion (FINREP reporting). This amount represents the sum of assets involved two activities, more specifically, it is composed of **assets which are managed within Belgian banks** (€ 336 billion, end of 2016) and **collective investment funds which are distributed by, but not managed within, Belgian banks** (€ 195 billion, end of 2016). Since the reporting is on a consolidated basis, assets which are managed or distributed by fully consolidated subsidiaries of Belgian banks are included here as well.

The amount of client assets for which Belgian banks, including their fully consolidated subsidiaries worldwide, provide asset management (€ 336 billion), is further subdivided into assets under *collective management* (€ 193 billion) and assets under *discretionary management* (€ 143 billion). Since some Belgian asset managers are fully consolidated in a Belgian bank, there is some overlap between the AuM reported in section 2.2 (€ 248 billion), and the amounts reported here (which is visualised in chart 2.5).

The € 336 billion also includes the AuM of the foreign subsidiaries of Belgian asset managers and of some foreign asset managers which are in the consolidation perimeter of Belgian banks. In addition, Belgian banks' assets under discretionary management relate to a certain extent to assets for which the banks, in the context of their private or institutional banking activities, provide discretionary management of portfolios themselves without the intervention of their (consolidated) asset manager. Based on the cross-verification of the different data sources, customer portfolios managed on a discretionary basis by the Belgian banks without the intervention of their asset manager consolidated in the bank represent a minimum amount of € 56 billion and a maximum amount of € 106 billion of the total of € 143 billion managed on a discretionary basis.

[26] FINREP is designed for application by credit institutions when preparing their consolidated supervisory financial figures under IAS/IFRS as and when required by the national supervisory authority. It represents a common standardised reporting framework with the objective to increase comparability of financial information produced by credit institutions for their respective national supervisory authorities. The scope of consolidation in FINREP may be defined with reference either to IAS/IFRS or the Capital Requirements Directive 2006/48/EC, as the national supervisory authority considers appropriate.

Chart 2.5: Scope of the AuM reported in this section (source: FINREP) and AuM reported in section 2.2 (Belgian asset managers) *(end 2016)*



Source: FSMA, NBB.

Belgian banks also distribute investment funds that are issued/managed by entities outside the bank[27] (€ 195 billion). These can be both in-house funds, managed by an intragroup but not fully consolidated asset manager, or they are third-party funds in a so-called "open architecture" model.

The total size of the Belgian asset management sector, as presented in this section, thus includes all the assets that Belgian banks (and their subsidiaries worldwide) manage on behalf of their clients and all the third-party or in-house investment funds that they distribute to their clients. The following examples can clarify the scope of the activities that are included in the € 531 billion:

- the Belgian and Luxembourg investment funds managed by a Belgian asset manager that is fully consolidated in a Belgian bank, for its Belgian and non-Belgian clients;
- the Belgian and Luxembourg investment funds distributed by a Belgian bank but managed by a third party or by a not fully consolidated intragroup asset manager;
- the (discretionary) investment mandate that a large Belgian insurance company has given to a Belgian bank (or to its consolidated asset manager) in order to manage a portfolio of a certain amount to be invested in a certain asset class;
- client assets managed in the context of private banking activities (discretionary mandate);
- …

It should be mentioned here however that one should be careful when adding figures on asset management activities as several sources of double-counting might exist. One can for example think of the following situations: a Belgian bank distributes investment funds from a manager consolidated into another Belgian bank, a Belgian bank invests assets under a discretionary mandate in investment funds managed by itself or by another Belgian bank, Belgian banks' collectively managed assets are invested in other funds or are "funds of funds"[28], etc.

Table 2.7 presents a summary of the figures mentioned above. It also shows the reported figures of Belgian banks' fee and commission income earned on the activities mentioned, on the basis of which an "average remuneration" for each activity was calculated.

In 2016, Belgian banks earned fee and commission income of around € 2 billion on their asset management activities, of which € 1.4 billion for assets managed within banks and € 0.6 billion for

27 "Outside the bank" refers to entities which are not included in the consolidation scope of the Belgian FINREP bank.

28 See also section 2.1.2 *Belgian public open-ended investment fund* above.

the distribution of investment funds. Relating this to the amount of assets involved at year-end, it is estimated that asset management and the distribution of investment funds generate, respectively, around 43 bps and 31 bps for Belgian banks. Amounting to around one third of the sector's total non-interest income (€ 7.6 billion at the end of 2016), income earned from banks' asset management activities is a rather important factor in supporting banks' profitability, especially in a low interest rate environment where banks earn much less on their traditional activities.

Table 2.7: Fee and commission income and assets involved in asset management related activities of Belgian banks *(2016, FINREP data)*

	Assets involved (€ billion, end of period)	**Fee and commission income (€ million, full year)**	**Average remuneration (bps)**
Asset managed within the bank	336	1,443	*43*
Collective management	193	N.A.	*N.A*
Discretionary management	143	N.A.	*N.A.*
o/w for pension funds	6	N.A.	*N.A.*
Collective investment products distributed by, but not managed within, the bank	195	605	*31*
Total of the activities above	**531**	**2,048**	***39***
Custody	17,062	1,192	*1*
Collective investment	501	77	*2*
Other	16,561	1,114	*1*
Central administration services for collective investment	145	77	*5*

Source: NBB (FINREP)

2.4.2. *Belgian banks' auxiliary services to the asset management sector*

Banks (and their subsidiaries worldwide) also provide services to the asset management sector. First, they often act as custodian, whose role involves, among other, the physical safekeeping of assets, the administration of financial instruments, the execution of instructed transactions, and cash and collateral management. At the end of 2016, Belgian banks (and entities within their consolidation scope) held around € 17,000 billion of custody assets. The larger share of these (€ 16,336 billion) was however situated at two Belgian banks, Euroclear and Bank of New York Mellon, with specific business models (specialised in, among other, asset servicing) and subject to specific prudential supervision. If excluding them, € 727 billion remains of which € 211 billion are collective investment funds, suggesting that this activity covers more than the asset management activities mentioned above (e.g. the individual securities on a client's securities account for which he performs "his own asset management" are included here as well, but they do not fall under banks' collective or discretionary asset management activities). The average remuneration of Belgian banks' custodian services is rather low, yielding between 1 and 2 bps.

Second, banks can provide central administration services for collective investment undertakings. The tasks of an administration services provider include, among other, the services of transfer agent, of compiling accounting documents and preparing the prospectus, of carrying issues and redemptions and of calculating the NAV. At the end of 2016, Belgian banks (including entities within their consolidation scope) provided administrative services for around € 145 billion of collective investment funds, by means of which they earned fee and commission income of € 77 million, resulting in an average remuneration of 5 bps.

2.4.3. Other links of Belgian banks with the asset management sector

Apart from their fee and commission income earned on asset management activities and on auxiliary services to the asset management sector**, Belgian banks have other links with the asset management sector; both on and off balance sheet links, both contractual and non-contractual links.**

First, investment funds, their asset management companies and some special purpose vehicles (SPVs) established by asset management companies, hold **deposits** at Belgian banks. The reason for holding these deposits can be varied: as operational cash buffers with the purpose of managing subscriptions and redemptions, as cash holdings for the purpose of the fund's liquidity risk management or as an investment as part of the strategic asset allocation, for example within funds with floor-monitoring mechanisms or MMF funds. Some structured funds – both public funds and internal insurance funds in the context of structured class 23 products (see box 2.1) – also hold assets in bank (term) deposits providing as such funding to (related) Belgian banks. Public investment funds should however comply with concentration limits that include deposits. It should be noted that not only in collective investment portfolios but also in those managed on a discretionary basis, (operational) bank deposits are held in order to facilitate efficient portfolio management.

Banks might also provide **credit/liquidity facilities** to investment funds, their asset managers and SPVs established by asset management companies, which those entities can draw on when they face more redemption requests than the liquidity of their assets allows to finance. It should be noted however that public open-ended investment funds can, according to the regulation, only borrow temporarily a maximum 10% of their NAV.

Another contractual link is when banks are counterparty to the derivatives held by investment funds or special purpose vehicles established by asset management companies. These entities might conclude **derivative contracts** (options, interest rate swaps, etc.) either for hedging purposes or for being able to provide the return which is indicated in the funds' investment objectives. The latter mainly prevails in structured funds (see box 2.1). The derivatives are often over-the-counter but under CSA/ISDA agreements and are as such fully **collateralised:** banks have to provide collateral when derivatives have a positive market value from the funds' point of view and receive collateral when it is the other way around. Through back-to-back transactions, banks can (and often will) re-hedge these derivative exposures to investment funds and special purpose vehicles with mirror-transactions in the market, concluded with external parties. Some investment funds also **lend securities** to banks under securities lending agreements, for which banks then provide them with **collateral** (in the form of cash or securities).

The above-mentioned *contractual* links are often with entities (investment funds, asset managers and SPVs) which are related to the bank(ing group). In interviews with selected banks in the context of this report, banks stated that they assess their links with such entities as any other contractual links with a third party, applying the same risk management procedures.

However, **there can also exist (significant) *non-contractual* links between a bank and its related entities.** Non-contractual links are links that stem from the so-called "step-in risk", which 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". The main reason for step-in risk might be to avoid the reputational risk that a bank might suffer were it not to provide support to an entity facing a stress situation".[29]

Two important assumptions underlie the identification of step-in risk and the existence of non-contractual obligations. First, it is assumed that risks arising from regulatory consolidated entities (e.g. from an asset manager that is consolidated in the bank) are already within the scope of prudential supervision, so that only the so-called "unconsolidated entities" give rise to step-in risk. Examples of such unconsolidated entities are collective investment undertakings, SPVs and unconsolidated asset managers.

Second, it relies on the assumption that all contractual links are already fully and correctly anticipated in prudential metrics and subject to prudential consideration (capital and liquidity charges) in the existing framework, so that a financial institution cannot face step-in risk from contractual links. That contractual links are fully and correctly captured in prudential metrics does not preclude, however, that some banks will classify, for internal risk management purposes, a share of these investment fund deposits as stable deposits with relatively low outflow rates in a stress scenario. In this connection, it is important that a comprehensive risk management framework at the level of the group ensures a consistent perception of the liquidity risks associated with such deposits (and possibly other credit/liquidity facilities for investment funds) between the asset managers and the bank entities of the financial conglomerate.

Belgian banks may not (yet) be (sufficiently) vigilant of the step-in risks that may arise from their sponsorship of, or other relationships with, unconsolidated investment funds, asset management companies and special purpose vehicles (SPVs) established by asset management companies. [30] **The Basel Committee is however currently working on a framework which is intended to complement existing provisions in the Basel framework by enhancing the step-in risk identification process and providing a set of options according to which banks can manage the risk and take action.**

29 The BIS has issued in December 2015 a first consultation paper on the identification of step-in risk www.bis.org/bcbs/publ/d349.htm), now revised in a second consultation paper on step-in risk (http://www.bis.org/bcbs/publ/d349.pdf). The framework aims at identifying the unconsolidated entities that could entail significant step-in risk for banks, through some indicators describing the relationship of the bank with non-bank entities: 1) capital ties, sponsorship, provision of financial facilities, decision-making and operational ties and 2) additional indicators related to asset management activities. If an unconsolidated entity meets one of the above-mentioned step-in indicators, the BIS presumes that significant step-in risk exists.

30 It is important to note here that step-in risk may arise from *any* unconsolidated entity which is related to the bank(ing group) and not only from unconsolidated investment funds, asset management companies and special purpose vehicles (SPVs). However, the Basel paper on step-in risk identifies some additional indicators for step-in risks specific to the asset management sector: "[…]The bank should consider in its assessment whether it has (directly or through an asset manager subsidiary):

- has provided the investors with guarantees on the performance of the fund or on its assets;
- has provided the investors with an explicit commitment to meet any shortfall in returns earned by the fund; or
- has a relevant interest in the fund other than its management fee (e.g. relevant investment in the fund or loans to the fund)."

2.5. Belgian insurance companies and asset management activities

This section discusses Belgian insurance companies' investment in investment funds. Such investments are very present as covering assets for the unit-linked life insurance business (so-called "class 23" contracts in the Belgian law), *see section 2.5.1.*, but also appear elsewhere on their balance sheet, *see section 2.5.2.* 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.

2.5.1. Unit-linked life insurance contracts ("class 23")

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. Policyholders can often choose within their contract which funds they want to invest in and also have the possibility to switch to other funds during the life of their contract.

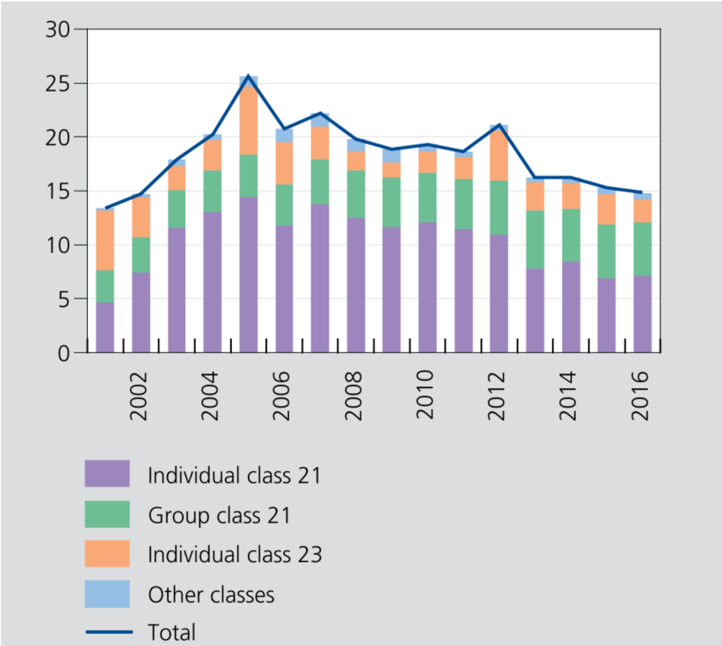
Class 23 contracts are sometimes perceived by investors as an alternative to the investment funds they can buy via a bank or an asset manager, however, the modalities of both are actually very different. First, the insurer invests in the funds on behalf of its policyholders with the premium amounts he receives. Second, such funds are in the first place internal (and non-public) funds, i.e. managed by the insurer or by an asset manager through a discretionary mandate (note that, as such, part of the Belgian internal insurance funds can be included in the assets under discretionary management of Belgian asset managers in section 2.3). As the insurer is the only shareholder of those funds, they do not fulfil the definition of a collective investment undertaking and are thus not (directly) part of the investment fund universe (section 2.2). However, these internal funds can of course invest in one or more (public) external investment funds such as UCITS or AIFs. The assets of internal investment funds remain on the insurer's balance sheet as a special (i.e. segregated) patrimony.

As regards the Belgian unit-linked insurance business, Solvency II reporting (which insurers have to submit to the NBB as from 1st of January 2016) can be used in order to get some more details on this portfolio. **At the end of 2016, Belgian insurers' technical provisions for class 23 contracts amounted to € 31.4 billion**, on an unconsolidated basis, and the amount of premiums paid in those contracts was € 2.2 billion for the full year 2016. During the past decade, the yearly amount of class 23 premiums paid varied from around € 2 to € 5 billion (see chart 2.6).

These € 31.4 billion of liabilities towards their policyholders were covered, on the asset side of Belgian insurers, almost entirely by units of investment funds (€ 27.7 billion) and also by a small amount of (mainly term) deposits (€ 2.4 billion) (see table 2.8). Data quality checks of this relatively new reporting revealed that some insurers report their internal funds here as fund units, while others report the assets of their internal funds on a look-through basis (and thus report the external fund units they invest in). As such, no conclusions yet can be drawn on the share of direct holdings of securities versus the share of external funds' units held in internal funds. However, based on some other data sources, it is estimated that the majority of the class 23 premiums actually flows into external investment funds. As these class 23 contracts are investments with a longer term horizon for the investor[31], they can mitigate somewhat the potential liquidity risk within those external investment funds.

[31] The fiscal advantage for class 23 contracts is linked to a minimum holding period of 8 years.

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, end 2016)*

	Solvency II amount
Collective investment undertakings	27,735
Equity funds	*11,511*
Asset allocation funds[32]	*6,668*
Other funds[33]	*6,493*
Debt funds	*2,605*
MMFs, real estate funds and alternative funds[34]	*457*
Cash and deposits	2,416
Deposits with term longer than 1 year	*2,310*
Transferable deposits and cash	*106*
Corporate bonds	600
Other[35]	672
Total	**31,423**

Source: NBB, Solvency II reporting

32 "Asset allocation funds": Collective investment undertakings which invests its 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

33 "Other funds": Other than equity, debt, money market, asset allocation, real estate, alternative, private equity and infrastructure funds

34 "Alternative funds": Collective investment undertakings whose investment strategies include such as hedging, event driven, fixed income directional and relative value, managed futures, commodities etc.

35 Structured notes, mortgages and loans, government bonds, equity, etc.

Several Belgian insurers also offer *structured class 23 contracts* with capital protection. The insurer then invests the received premiums either directly, within an internal fund, in a derivative and savings component (often term deposits or bonds of a (related) banking entity), or invests the premiums in a structured fund or in structured notes (often issued by a group entity), see also box 2.1. There also exist *other protection mechanisms* within Belgian class 23 contracts. Some insurers offer options such as capital gain orders, stop loss orders, rebalancing orders etc. to their policyholders, and/or offer class 23 funds with a floor-monitoring mechanism. The latter implies that the insurance funds invest in both riskless and risky assets and adapt their proportion in function of market evolutions, aiming at keeping the NAV above a certain floor (specified in the contract) at all times. It can be argued that such products, offering some kind of protection mechanism, pose a relatively higher step-in risk to the originator.

It moreover appears that **(large) Belgian insurers that belong to a "bancassurance" group (as there are several), conduct much of their class 23 business *intragroup*.** That is, their internal funds covering class 23 contracts are to a large extent managed by the group's asset manager or invest in underlying funds which are managed by the group's asset manager. Moreover, these (underlying) funds can have assigned the group's banking entity or asset servicing company as their custodian. Apart from that, a lot of these insurers also offer structured class 23 contracts, of which the premiums largely flow into the group; If these contracts are covered by funds investing in deposits (and derivatives), these are often (term) deposits placed at the banking entity of the group (and sometimes the derivatives are also concluded with the banking entity); if these contracts are covered by (funds investing in) structured notes, the underlying assets are, apart from the derivative exposure, largely deposits at or loans to intragroup entities. Moreover, these structured notes are often issued by an intragroup or group-sponsored financing company or SPV. Premiums paid in structured insurance contracts can thus be a substantial source of (long-term) funding to entities in bancassurance groups.

It should be noted here that class 23 insurance contracts can also be distributed by the related banks, generating as such fee and commission income for these banks. In the FINREP reporting, the fee and commission income reported by Belgian banks from "insurance products distributed" amounted to € 738 million in 2016. However, no breakdown according to type of insurance product (life versus non-life, class 21 versus class 23) is yet available.

As regards the other insurers active in class 23, it seems that the internal funds they offer are largely a repackaging of an existing (public) investment fund, managed in most cases by (often international) asset managers with no linkage to the insurer. These insurers generally offer no contracts with capital protection.

Internal class 23 funds thus can exist of many "layers" of underlying investments and it is therefore important that insurers are transparent towards their policyholders with respect to these underlying structure(s) in information sheets, reports, etc. When policyholders have a good awareness of the potential risks to which they are ultimately exposed, the reputation risk of the insurer and in extension of the whole group can be reduced to an important extent.

2.5.2. Investments in UCIs other than in the context of unit-linked life insurance business

Apart from their investments in external funds in the context of their class 23 business, Belgian insurers also invest in UCI shares or participation rights for other purposes. More specifically, they invest in UCIs as part of their covering assets for life insurance products other than class 23 and for non-life insurance products, and also have UCI investments that are not covering technical provisions. At the end of 2016, these investments amounted to € 14.2 billion. Broken down by type of fund, the larger share was located in debt funds (€ 6 billion), money-market funds (€ 3 billion), equity funds (€ 1.5 billion) and real estate funds (€ 1.1 billion) (table 2.9). Around € 6 billion of these funds were issued in France, € 4 billion in Luxembourg, € 2 billion in Belgium and € 1 billion in Ireland. Their custodian was mainly located in Belgium (€ 11 billion) and Luxemburg (€ 1.3 billion).

Table 2.9: Belgian insurers' investments in UCIs other than in the context of their unit-linked life insurance business *(€ million, end 2016)*

	Solvency II amount
Debt funds	5,870
MMF	2,997
Equity funds	1,495
Real estate funds	1,102
Alternative funds	859
Other funds	809
Private equity funds	669
Asset allocation funds	223
Infrastructure funds	162
Total	**14,187**

Source: NBB

Box 2.1: Structured products and the moratorium

Structured products are investment products that include a derivative component. Their repayment or yield[36], calculated by means of a formula, depends on the performance of one or more underlying assets, e.g. a market index, interest rates or commodity prices[37]. Part of these structured products can be considered to be complex. Structured products exist in many forms (e.g. deposits, notes, investment funds, insurance contracts). They generally have a fixed maturity[38] and often offer a kind of capital protection or guarantee at the maturity date. They can be distributed to both institutional and retail investors. However, given their often complex nature, not all structured products appear to be suited for distribution to retail investors. Therefore, the FSMA invited distributors of structured products in Belgium to sign on to a *moratorium* on the distribution of particularly complex structured products. A very large majority of distributors of structured products in Belgium have signed on to this voluntary moratorium that has taken effect on 1 August 2011.

They committed themselves not to distribute to retail investors any structured products that are considered "particularly complex" on the basis of criteria set out by the FSMA.[39] The distributor may still opt not to apply the moratorium to retail investors who hold deposits and financial instruments with the distributor with a value, at the time of distribution, of more than € 500,000. This opt-out applies only to the part of the asset that exceeds € 500,000. The moratorium has contributed to reducing the complexity of these types of products distributed to retail investors, as well as to increasing their transparency.

36 The return on structured products can be in the form of variable or fixed coupons and/or a capital gain.

37 This definition is similar to the definition from the communication FSMA_2011_02 of 20 June 2011 on the moratorium on the distribution of particularly complex structured products.

38 Some structured products are (auto)callable before they reach maturity.

39 Structured products distributed to retail investors are judged by four criteria: (1) their underlying value should be accessible, (2) their strategy should not be overly complex, (3) their calculation formula should not be overly complex, and (4) they should be transparency regarding costs, credit risk and market value.

Structured products generally consist of two main underlying investment components. Apart from the investment in derivative instruments used to realise the product's return (the "derivative component"), the issuer invests in products which are intended at preserving the initially invested capital at maturity date (the "savings component"). The latter products are often fixed-income products such as bonds, term deposits or loans. The income received from this component can be used to cover repayment of the original capital and, depending on the structure, to cover expenses originating from the derivative contracts (e.g. an option premium or swap payments). As far as the savings component is issued by a credit institution, it can be subject to bail-in. Moreover, the FSMA has considered that structured subordinated products are too complex for retail investors and considers these products as incompatible with the moratorium.

Many of these structured products offer a kind of capital protection feature or a capital guarantee, i.e. they are structured specifically to ensure the repayment of 100% of the invested capital at maturity. A hard capital *guarantee* is a legally binding engagement by a third party guaranteeing the issuer's payment obligations, which can be the bank distributing the product. Capital *protection* offered by the structured product is the result of the investment strategy of the issuer, i.e. of investing in assets with a relatively low credit risk for the savings component[40]. In addition, some structured products, while not offering a protection of 100% of the invested capital, offer a minimum repayment feature of at least e.g. 90% or 80% of the invested capital. If a credit risk event materialises for at least one of the assets in the savings component, the investors can lose (part of) their investment beyond what was foreseen as the maximum loss by the structure of the product.

Capital protection or a minimum repayment of a certain fraction of the invested capital, without an explicit guarantee, is typical for structured investment funds. For structured notes issued by an SPV/financing vehicle, however, a formal capital guarantee is often provided by the banking entity of the group distributing these notes, such that the repayment of the initially invested capital depends on the credit risk of the issuers and counterparties of the underlying instruments, as well as the financial health of the issuer and/or guarantor of these notes.

As noted before, structured products exist in many forms. First, several Belgian banks distribute structured notes. Often, these structured notes are issued within the group to which the banks belong, by an intragroup/group-sponsored financing company/SPV or by the group itself. In that case, the issuance proceeds are often largely invested in term deposits at the banking entity of the group or in loans made to group entities, providing as such funding to those entities.

Second, some Belgian asset managers establish structured investment funds. These funds invest in bonds of several issuers or concentrate their exposure in term deposits at a (related) banking entity. Note that publicly offered structured investment funds have to comply with concentration limits. For example, public structured funds investing in bank deposits collateralise at least 80% of these deposits, receiving various instruments as collateral from the banking entity at which the deposits are placed. Often, the derivatives concluded to provide the fund's return have as their counterparty a banking entity of the group to which the asset manager of the fund belongs. In that case, the banking entity serving as counterparty to the derivatives of the structured investment fund may also conclude back-to-back operations in the market in order to be hedged.

40 It should be noted that the FSMA does not accept the use of the concept "capital protection" in the marketing documents of notes to denominate the repayment obligations of issuers of these notes, while this was commonly used in the past and may still be used in some marketing documents abroad, as there is no other protection than the commitment of the borrower to repay the loan. Capital protection can only be used with reference to investment funds.

Thirdly, some Belgian insurers offer structured class 23 insurance contracts which provide exposure at the maturity date to the underlying structured class 23 fund(s). The insurer will invest the premiums directly, within an internal fund, in a derivative and a savings component (often in term deposits or bonds of a (related) banking entity), or will invest the premiums in a structured fund or structured note (often issued by a group entity). Internal insurance funds are not subject to the same concentration limits as public funds.

It can be concluded from the above that structured products generally have various links (deposits, loans, collateral, derivatives etc.) to different on- and off-balance sheet related entities of a banking group (financing companies, asset managers, investment funds, banks, insurers etc.) and that group entities often benefit from funding received from the issuance proceeds of those structured products. This funding is in some cases perceived as longer term funding, given that clients have an incentive to keep their structured products until maturity as the capital protection, if any, is only provided at maturity date. However, structured products can still be redeemed before maturity and this should be reflected and accounted for correctly in prudential metrics.

While the risk of structured notes that are legally guaranteed by the distributor (e.g. a bank) should already be taken into account in the prudential metrics of the distributor, the distribution of other structured products, especially those providing capital protection or a minimum repayment of a certain fraction of the invested capital, can be considered to pose step-in risk[41] to the distributor and by extension to the whole group to which the distributor belongs. For reputational reasons, distributors can decide to "step in" in these structured products in case of a failure of these products, i.e., in case the cash generated by the underlying assets is not sufficient to cover the payment obligations resulting from these structured products at maturity. Such a situation is more likely to appear, and more likely to have negative consequences for the health of the distributor and/or the group to which the distributor belongs, in case of severe financial stress. It should be noted, however, that to date such an intervention has not taken place.

In Belgium, the total volume of structured products distributed to retail investors since the start of the moratorium on 1 August 2011 until 31 December 2016 amounted to € 39.4 billion, of which € 13.4 billion structured notes, € 10.9 billion structured investment funds, € 14.9 billion structured class 23 products and € 0.2 billion structured term deposits. This volume represents a total of 1,730 products issued. 38 structured products were issued under the opt out regime. In addition, 2,148 structured notes were distributed as private notes (no public offer). 1,993 of these private notes were issued under the opt out regime.

According to a private database, the total volume of outstanding structured products in Belgium (tranche products) is € 55.39 billion at the end of 2016[42].

---

41 For more information on step-in risk, see section 2.4.

42 Source: www.StructuredRetailProducts.com.

2.6. Belgian institutions for occupational pensions and asset management activities

At the end of 2015 there were 198 Belgian institutions for occupational retirement provision (or "pension funds") authorised, accounting for about € 25 billion of net assets. For the majority of these pension funds, assets are managed by one or several asset management companies. Hence, part of the assets under management of the Belgian asset managers, as mentioned in section 2.2, refers to assets held by Belgian pension funds. Some pension funds, however, are self-managed, while other investment funds have designated foreign asset managers.

Table 2.10: Total assets and investments by Belgian institutions for occupational pensions
(€ million, end 2015)

Investments	22,529
Investment fund units	17,330
Total assets	**24,693**

Source: FSMA

Note:
This table presents statistics on the total assets and investments by Belgian institutions for occupational pensions, in particular their investments in units of investment funds

In addition, a large fraction of pension fund assets is invested in investment funds, as can be seen from table 2.10. In 2015 about 70% of their net assets were constituted of investment fund units. Investing in funds can ensure compliance with diversification rules. A fraction of the net assets of the Belgian investment fund industry, as mentioned in section 2.1, and the foreign investment funds distributed in Belgium, as mentioned in section 2.3, is thus held by Belgian pension funds.

CHAPTER III: Overview of the Belgian shadow banking sector

3.0. Introduction

This chapter provides an overview of the Belgian shadow banking sector: how is it delineated, how important is the sector, what are the main features. The measurement is based on a combination of financial accounts data of the National Accounts Institute and FSMA reporting data of the entities under its supervision.

The financial accounts register financial transactions between the institutional sectors of the domestic economy and with the rest of the world. The domestic sectors consist of the non-financial and financial companies, the households and the government. Shadow banking is part of the financial sector, and provides, as well as the banks, insurance companies, pension funds and other financial intermediaries and auxiliaries, valuable services to the well-functioning of the economy by providing financing and investment opportunities to the different institutional sectors.

The shadow banking sector as such is not defined in the financial accounts. It has to be deducted by adding the financial assets of several entities. Additional information stemming from the FSMA is added to the information provided in the financial accounts. Different definitions for the Belgian shadow banking sector could be used and they would lead to a diverging magnitude of the Belgian shadow banking sector. The report focuses on the following two main definitions (measured as at the end of 2016): € 19.4 billion for the EBA framework and € 128 billion according to the FSB framework.

3.1. How to delineate the Belgian shadow banking sector?

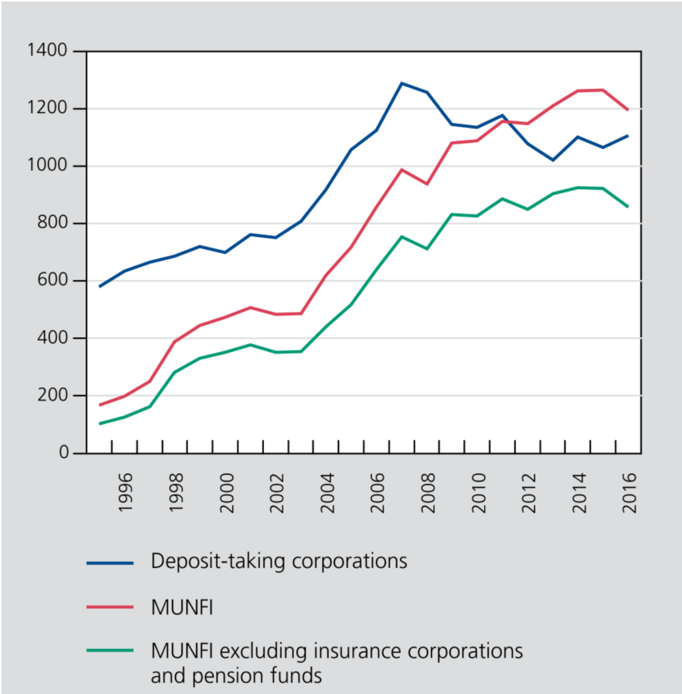
Different definitions are used to delineate the shadow banking sector, but **most of them start from the same concept, namely the FSB definition of shadow banking as credit intermediation that involves entities and activities outside the regular banking system**, and therefore lacking a formal safety net. It should be stressed that this definition does not mean that the shadow banking sector escapes from regulatory requirements; **the sector is regulated in a different manner than 'regular' banks, and a separate chapter of this report is devoted to describing the existing regulatory framework for shadow banks and to assessing if current regulation is sufficient to mitigate the risks detected**.

This broad FSB definition is also called the 'monitoring universe of non-bank financial intermediation (MUNFI)' which is the sum of financial assets of non-bank financial entities[43], pension funds and insurance companies and is calculated using flow of funds data in financial accounts (established on a residential basis, meaning that only entities residing in the country are taken into account). Note that the financial accounts' data only cover on-balance sheet exposures (not off-balance sheet links).

The Belgian MUNFI amounted to € 1,196 billion at the end of 2016 (283 % of GDP), compared to € 1,105 billion of banking sector assets. It showed a steady increase and exceeded the size of the banking sector as from 2012.

[43] Non-bank financial entities consist of money market funds (S123), non-money market funds (S124), other financial intermediaries (S125), financial auxiliaries (S126) and captive financial institutions (S127).

__Chart 3.1: Total financial assets of the Belgian financial sector__ (in € billion)



Source: NBB calculations based on NAI-data.

__Note:__
MUNFI= monitoring universe of non-bank financial intermediation

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 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.

In the next sections, two approaches will be explained in detail, that of EBA and that of the FSB. A third approach, namely the broad measure of the ESRB that includes all entities of the financial sector except banks, insurance corporations and pension funds (€ 857 billion at the end of 2016) is not further explored in this report because it is believed to be insufficiently granular and therefore not very representative for the true size of Belgian shadow bank sector. The ESRB attempts to further narrow down this definition, but is hampered by the lack of granular data that is available at country level.

3.1.1 EBA framework

Under the European Banking Authority (EBA) framework, shadow banks are entities that:

- carry out credit intermediation activities, defined as bank-like activities involving maturity transformation, liquidity transformation, leverage, credit risk transfer or similar activities; and
- are neither within the scope of prudential consolidation nor subject to solo prudential requirements under specified EU legislation (or equivalent third country legal frameworks). Entities referred to in Article 2(5) and Article 9(2) of Directive 2013/36/EU12, as well as other entities as defined in the guidelines (‘excluded undertakings’) (i.e. UCITS), are also not to be regarded as shadow banking entities.

The description of 'credit intermediation' adopted by the EBA follows the approach prescribed by the FSB, as this best describes the types of activities undertaken by shadow banking entities. However **views diverge with the FSB as to what extent investment funds should be considered part of the shadow banking sector. Under the EBA's *Guidelines on Institutions' Exposures to Shadow Banking Entities*[44] only money market funds (MMFs) and some AIFs are considered to fall within the scope of the definition of shadow banking**.

UCITS funds are regulated pursuant to prudential frameworks similar to those applied to credit institutions and investment firms. The UCITS Directive (Directive 2009/65/EC) prescribes a robust set of requirements under which undertakings for collective investment in transferable securities, and their managers, operate. These include requirements applicable to the asset manager (initial capital, own funds and internal control requirements) and to the managed funds (e.g. limits to leverage and concentration) (see section 2.1, section 2.2 and annex 2). Therefore, such funds do not pose the same level of risk to institutions in terms of credit and step-in/bail-out risk (e.g. due to reputational, franchise and other risks) as less regulated funds.

Notwithstanding these requirements, EBA includes all Money Market Funds (MMFs), regardless of whether they are established as UCITS, within the scope of the definition of shadow banking entity. This is because, the average size of a MMF far exceeds the average size of a typical UCITS fund and, the systemic risks posed by such funds (in particular having regard to their interconnectedness with the banking sector) have not been addressed to an adequate degree through existing regulatory measures.

Regarding the treatment of alternative investment funds (AIFs), the EBA acknowledges that AIFs are regulated indirectly, as a result of requirements imposed on their asset managers under the AIFMD, e.g. initial capital, own funds and internal controls requirements (see sections 2.1 and 2.2 and annex-2). However, the risks arising directly from the funds themselves are not mitigated in a satisfactory way from a prudential point of view. EBA is of the view that only AIFs with limited leverage[45] could be considered to fall outside the definition of 'shadow banking entities'. Furthermore, only AIFs which are not entitled to grant loans or purchase third parties' lending exposures onto their balance sheet should be excluded from the definition of 'shadow banking entities'.

The EBA framework is consistent with some notable examples of asset management structural issues that have posed important challenges to the global financial system. For example, the 1998 collapse of Long-Term Capital Management (LTCM), a leveraged hedge fund, disrupted the functioning of many important debt markets. Furthermore, structural weaknesses in the design of certain MMFs were an important contributor to the global financial crisis in 2008.

Under the EBA framework, the Belgian asset management entities included in the shadow banking sector amounted to € 2.4 billion at the end of 2016 and consisted of € 1.9 billion Belgian MMFs and € 0.5 billion AIFs with a leverage that exceeded 300% or that were granting/purchasing loans. The EBA definition further requires to include entities that are neither within the scope of prudential consolidation nor subject to solo prudential requirements under specified EU legislation. These entities are delineated in the FSB framework in section 3.1.2. Under this scope, the total shadow banking sector under the EBA framework would amount to € 19.4 billion, by adding to the € 2.4

[44] Published on 14 December 2015 on the EBA website: https://www.eba.europa.eu/documents/10180/1310259/EBA-GL-2015-20+GL+on+Limits+to+Exposures+to+Shadow+Banking+Entities.pdf/f7e7ce6b-7075-44b5-9547-5534c8c39a37.

[45] Article 111(1) of Delegated Regulation 231/2013 considers leverage to be employed on a substantial basis when the AIF exposure exceeds 300% of its net asset value.

billion mentioned above, the loan provision that is dependent on short-term funding and which is done by other financial intermediaries that are not consolidated in a banking/insurance group (€ 7 billion at the end of 2016) and securitisation activities by financial vehicle corporations that are not retained on the balance sheets of Belgian banks (€ 10 billion at the end of 2016) — see section 3.1.2. for further details. Under the EBA framework the Belgian shadow banking sector represents 1.8% of the size of the Belgian banking sector.

3.1.2. FSB framework[46]

The narrowing down of the Belgian shadow banking sector according to the framework developed by the FSB is part of the 2016 FSB monitoring exercise[47]. The FSB has conducted annual monitoring exercises since 2011 to assess global trends and risks in the shadow banking. The 2016 monitoring covers 28 jurisdictions[48]. The FSB delineation framework is applied in seven Euro Area countries[49].

This narrowing down is based on economic functions (EF), where authorities assess whether or not non-bank financial entities and activities are involved in shadow banking risks (e.g. maturity/liquidity transformation and leverage) and, if yes, are classified in an economic function.
For the 2016 monitoring exercise, five economic functions were defined:

1. EF1: Management of collective investment vehicles with features making them susceptible to runs.
2. EF2: Loan provision that is dependent on short-term funding.
3. EF3: Intermediation of market activities that is dependent on short-term funding or on secured funding of client assets.
4. EF4: Facilitation of credit creation.
5. EF5: Securitisation-based credit intermediation and funding of financial entities.

In order to calculate a narrow shadow banking measure that is consistent with the FSB methodology and includes non-bank credit intermediation that poses bank-like risks to the financial system, the **financial assets held by pension funds (€ 25 billion) and insurance companies (€ 314 billion) are disregarded** in a first stage. The measure is **further narrowed down by excluding the financial assets of equity investment funds (€ 39 billion), stockbroking firms and B-REITS[50] (€ 8 billion), financial auxiliaries (€ 61 billion), private equity firms (€ 35 billion) and captive financial institutions (€ 471 billion).** The main reason for excluding equity funds is that these entities have no credit intermediation function: the share of assets under management invested in credit-related assets is well below the 20% threshold set by the FSB. Stockbroking firms' assets as well as their liabilities are short term and only for the purpose of doing transactions with clients. They act as pure brokers for clients and are not engaged in credit intermediation. B - REITS mainly invest in income-generating (commercial) real estate and are all listed on a stock exchange, implying that they are not subject to run risk. They are furthermore legally limited in the provisioning of credit, and, hence remain below the 20% threshold mentioned above, and in the use of leverage. Financial auxiliaries (mainly

[46] Note that the last FSB shadow banking exercise was conducted in 2016 for data up to 2015. Results have been published in the Global Shadow Banking Monitoring Report 2016. In this section we update the Belgian data to 2016.

[47] FSB, Global Shadow Banking Monitoring Report 2016.

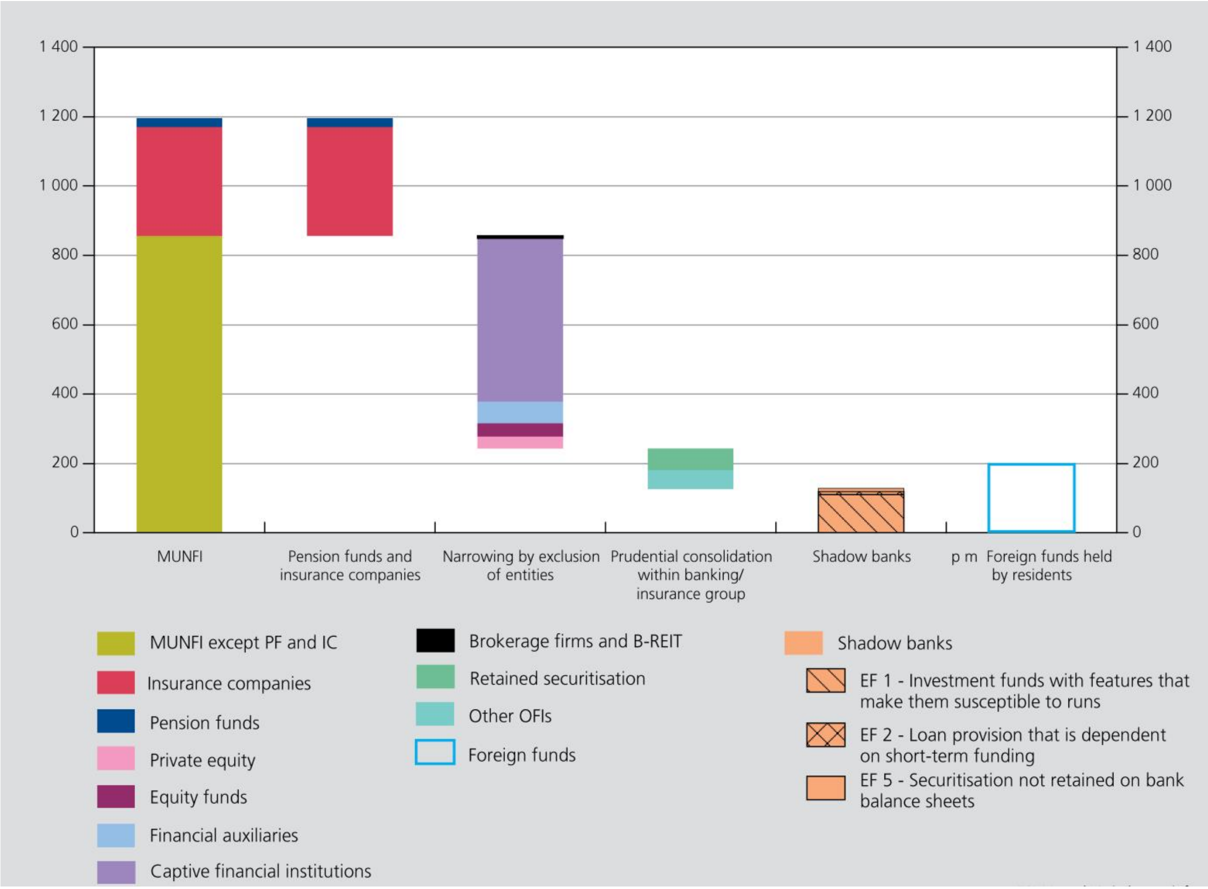
[48] AR = Argentina; AU = Australia; BE = Belgium; BR = Brazil; CA = Canada; CI = Cayman Islands; CH = Switzerland; CL = Chile; CN = China; DE = Germany; ES = Spain; FR = France; HK = Hong Kong; ID = Indonesia; IE = Ireland; IN = India; IT = Italy; JP = Japan; KR = Korea; MX = Mexico; NL = Netherlands; RU = Russia; SA = Saudi Arabia; SG = Singapore; TR = Turkey; UK = United Kingdom; US = United States; ZA = South Africa.

[49] Belgium, France, Germany, Ireland, Italy, Netherlands, Spain.

[50] B-REITS consist of entities under the law of 12 May 2014 (Wet betreffende de gereglementeerde vastgoedvennootschappen/Loi relative aux sociétés immobilières réglementées).

consisting of financial head offices in Belgium) are excluded because they act on behalf of clients and do not own the assets or liabilities being transacted. As to private equity, there is no specific FSB guidance so far, hence, we follow the general guidance and do not consider these as entities engaging in credit intermediation with bank-like risks. The captive financial institutions, finally, mainly effect intra-group transactions (for fiscal reasons) and hardly engage in any investment or borrowing with entities external to the group.

Chart 3.2: Delineating of the Belgian shadow banking sector according to the narrow FSB criterion *(at the end of 2016, in € billion)*



Source: NBB calculations based on NAI-data.

<u>**Notes:**</u>
MUNFI = monitoring universe of non-bank financial intermediation
PF = pension fund
IC = insurance company
OFIs = Other Financial Intermediaries

Entities consolidated into a banking group[51] for prudential purposes, should be excluded as much as possible from the shadow bank sector as they are subject to bank-like regulation/supervision of shadow banking risks. The NBB has recently been refining its statistical framework the residual of the Other Financial Intermediaries (S125-4), namely by splitting up the companies engaged in factoring, leasing, consumer and mortgage lending in prudentially consolidated and non-consolidated

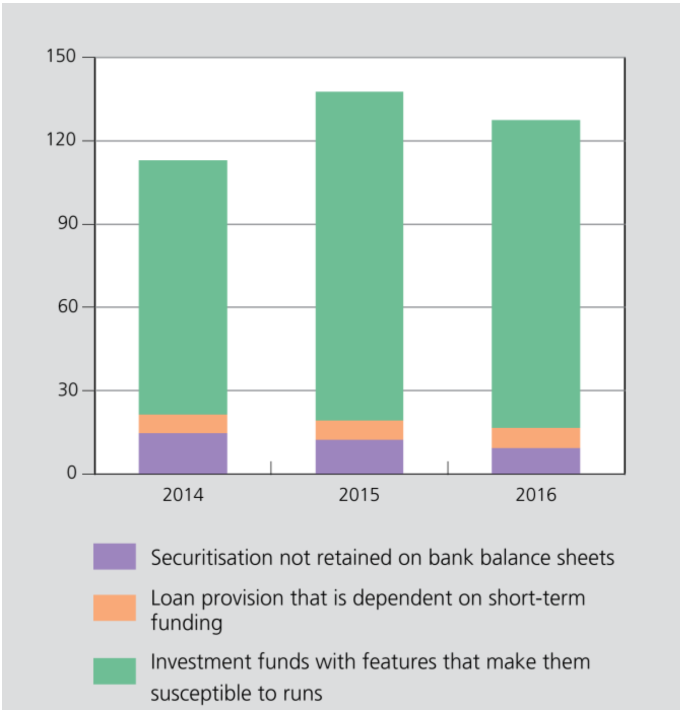
[51] The FSB currently only considers for exclusion consolidation into banking groups or entities subject to Basel-equivalent prudential regulation. Discussions are ongoing to consider consolidation into insurance companies and financial conglomerates as well.

entities[52]. This was only possible for the years 2014 and 2015 and results for 2015 have been extrapolated to 2016. **At the end of 2016, the assets of consolidated entities engaged in factoring, leasing, consumer and mortgage lending was € 55 billion. In the same way, retained securitisation should be excluded.** Retained securitisation vehicles take loans from a bank and turn these into debt securities which are given back to the same bank (e.g. for use as collateral for accessing central bank funding). **Retained securitisation amounted to € 61 billion at the end of 2016**.

All in all, the Belgian narrow shadow banking sector, delineated according to the FSB methodology, amounted to € 128 billion at the end of 2016, representing 30 % of GDP or 11.6% of the size of the Belgian banking sector. The bulk of the Belgian narrow shadow banking sector consists of investment funds, which are classified under EF1. EF1 includes the Belgian money market and non-equity investment funds (**€ 111 billion at the end of 2016**), which are almost all open-ended and hence susceptible to run risk. They can take the legal form of undertakings for collective investment in transferable securities (UCITS) or alternative investment funds (AIFs) and are offered to the public as well as to institutional investors[53].

The second category of shadow banks relates to EF2, consisting of loan provision that is dependent on short-term funding and which is done by other 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 (€ 7 billion at the end of 2016).

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



Source: NBB calculations based on NAI-data.

52 Cappoen S. and Druant M., Belgian shadow banking sector with a focus on OFIs, Paper presented at the IFC-NBB workshop 'Data needs and statistics compilation for macroprudential analysis' 18-19 May 2017, forthcoming.

53 Please refer to chapter 2 (section 2.1) for more details on the different types of Belgian investment funds.

The third and last category of shadow banks consists of securitisation activities by financial vehicle corporations that are not retained on the balance sheets of Belgian banks. This small group of activities (€ 10 billion at the end of 2016) is categorised under EF5. The securitisation market peaked in Belgium in 2011-2012, essentially due to the retained securitisation of mortgage loans. Note that this retained part of the securitisation market is not considered as shadow banking. The important decline of the securitisation market at the global level also affected the Belgian market and the issuance lost momentum since 2013. Belgian banks instead placed more on-balance-sheet covered bonds in the market.

After strong growth in 2015, the shadow banking sector lost some importance in 2016, mostly because of net sales of investment funds, valuation effects being slightly positive (chart 3.3). The recent loss of interest for funds was mostly situated in the money market and bond funds, as well as in the funds offering capital protection, while net purchases were observed for mixed funds. Developments in loan provisioning by other financial intermediaries were rather stable. As to non-retained securitisation, the loss of interest observed since 2013 continued.

Besides the Belgian entities mentioned so far, foreign investment funds play an important role in Belgium. These are to a large extent Luxembourg funds, but also include funds of German, French or Irish origin. As these foreign funds are not residing in Belgium, they are not included in the Belgian shadow banking sector. They are not under the supervision of Belgian authorities[54]; they have to follow a notification procedure with FSMA[55] in order to make an offer to the public. However, these funds are often commercialised and managed by Belgian banks and have close interconnections with the Belgian banking system. From this perspective, they are part of the monitoring framework. The investments by Belgian residents in foreign funds amounted to € 199 billion at the end of 2016. The statistical framework does not allow to exclude the investments in equity funds, as required by the FSB methodology.

The remainder of this report will be based on the results of the delineation according to the FSB definition. Although methodological differences remain between countries, it is currently the most harmonised definition at the global level and allows for an international comparison of the shadow banking sectors as presented in the next section.

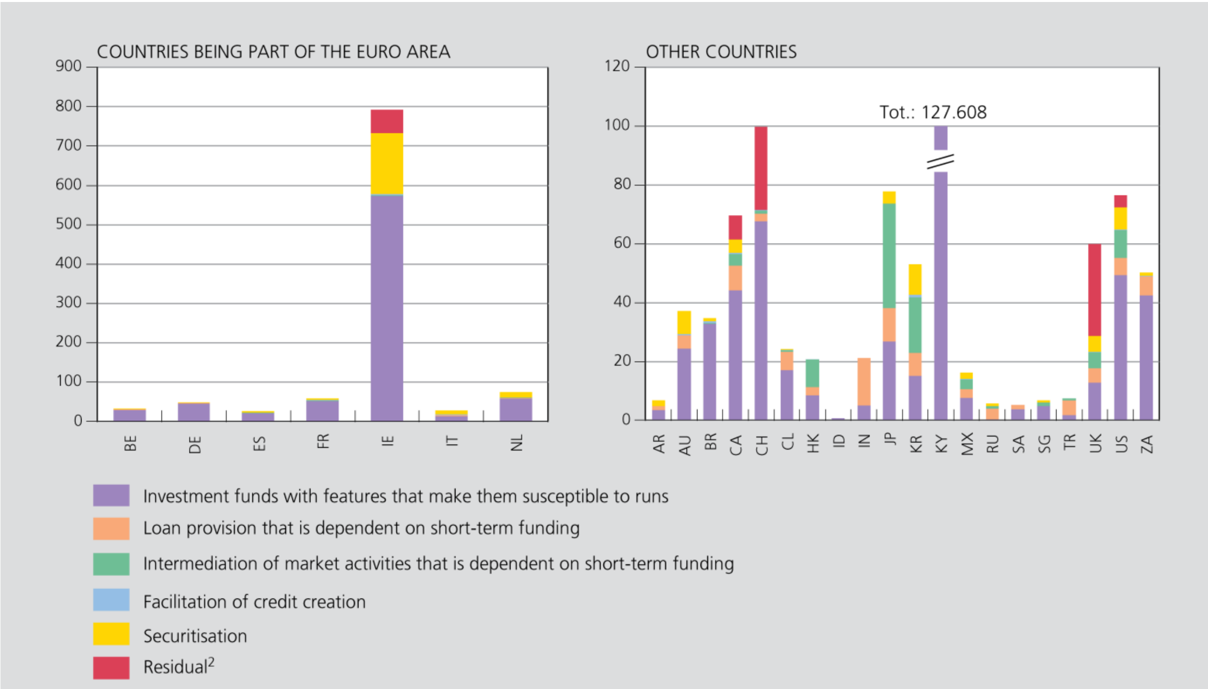
3.2. Belgian shadow banks in an international context (data 2015)

The Global Shadow Banking Monitoring Report 2016 of the FSB allows for a comparison at the global level for the year 2015. The share in GDP of **the Belgian shadow banking sector is comparable to that of Spain and Italy and smaller than that of the Netherlands, Germany and France**. Just like in Belgium, investment funds are the main component in these countries. The exceptional position of Ireland has to do with its role as a financial centre, more specifically the important presence on Irish territory of investment funds and securitisation vehicles that are often established by foreign financial institutions.

54 With the exception of foreign alternative public funds.

55 Foreign UCITS funds are notified in Belgium, foreign managers of AIF's notify their activities.

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



Sources: FSB, NBB.

<u>Notes:</u>

[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.

CHAPTER IV: Monitoring framework for the Belgian asset management and shadow bank sectors and interconnectedness between Belgian residents and shadow banks worldwide

4.0. Introduction

This chapter discusses the way in which the NBB and FSMA conduct their monitoring of the Belgian asset management and shadow bank sector (which partly overlap). This monitoring consists of several steps. First, on a regular basis, developments in the size and significance of both sectors have to be followed up. Various data sources which can be used for this purpose already exist, however some data gaps (and ways to reduce them) are identified as well (*section 4.1*). Second, the risks posed by the entities have to be monitored. Within this regard, the FSB has developed metrics in order to quantify to which extent shadow banking entities engage in bank-like risks. These metrics are calculated in *section 4.2* for the Belgian shadow banking sector as defined in chapter 3. Third, it is important to know how and to which extent the Belgian economy is exposed to worldwide shadow banking entities. This is discussed in *section 4.3*.

4.1. Monitoring framework for the Belgian asset management and shadow banking sectors

4.1.1 Data sources used for the delineation of both sectors

The analyses that have been presented in chapters 2 and 3 can be updated on a regular basis, since the required data — on asset managers, investment funds, banks, insurance companies, institutions for occupational pensions, and other entities of the Belgian financial sector (financial auxiliaries, captive financial institutions, etc.) — **are regularly collected by the FSMA and NBB**. They include:

- Periodic statistical data on the balance sheet and profit and loss accounts from Belgian asset managers and Belgian public open-ended investment funds;
- Periodic reporting by Belgian managers of AIFs on their activities, the AIFs under their management, and any related risks, under the reporting requirements of the AIFMD;
- Securities holdings statistics, which contain detailed information on the holding of units of both Belgian and foreign investment funds, as well as the composition of the securities portfolio of Belgian investment funds;
- Periodic prudential supervisory data on, among other, the balance sheet and profit and loss accounts from Belgian banks and insurance companies;
- Financial accounts data of the National Accounts Institute.

These data contain useful information for the supervision and monitoring of asset management and shadow banking activities, as well as the monitoring of potential financial stability and investor protection risks arising from those activities. These data are partially shared between the FSMA and the NBB. As a result of these data collection efforts, the tables and charts presented in chapter 2 and chapter 3 of this report can be updated annually in an effort to establish a continuing monitoring effort.

As regards shadow banking in particular (including, by definition, some asset management entities), **the international institutions have considerably increased their efforts to define the shadow banking sector and to develop monitoring frameworks**, with a view on enhanced supervision and eventually regulation. **At the global level**, a leading role was taken up by **the FSB, in collaboration with IOSCO and BIS**. T**he EC, ECB, EBA and ESRB** have made large efforts to bring this work forward **at European level**. **The FSMA and NBB are involved in this international work.** At Belgian level, the HLEG report includes recommendations on monitoring, enhancing the current regulatory and supervisory framework and limiting possible contagion effects linked to shadow banking.

The FSB conducts yearly global monitoring exercises, and publishes the results in the Global Shadow Banking Monitoring Report (see chapter 3). The ESRB analyses the EU shadow banking sector and published the results in its yearly EU Shadow Banking Monitor.

The above calls for the need to establish a comprehensive view on shadow banking in the Belgian financial sector and the potential associated risks. This entails work in several domains: (i) delineate the Belgian shadow banking system, (ii) develop a risk monitoring framework, (iii) look closer at interconnections with other sectors of the economy and the risks they entail, and, (iv) assess if current regulation is sufficient to mitigate the risks detected. All these aspects are dealt with in this report. While (i) has been discussed in chapter 3 of this report, (ii) and (iii) follow in sections 4.2 and 4.3 below and (iv) is covered in chapter 5 of this report. In the future, the work will be continued in a yearly risk assessment framework.

4.1.2. Enhance data quality and reduce data gaps

Under the policy recommendations to address structural vulnerabilities from asset management activities of the FSB, the national competent authorities should collect data on liquidity and leverage risks. **The existing reporting requirements should be reviewed and enhanced where appropriate to ensure that they are adequate for capturing the risks that these investment funds may pose. The FSMA is collaborating to the work of IOSCO and the ESRB to analyse the data that are available to regulators, and to identify where the data collection could be enhanced.**

The ESRB has 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[56]. Asset management is one of the areas of concern, but the ESRB recognises that AIFMD will lead to improved data availability from 2016 onwards, which will facilitate monitoring work. Remaining data gaps, which currently prevent a comprehensive quantification of prospective financial stability risks, will need to be addressed, especially regarding UCITS.

The AIFMD requires AIFMs to report to national competent authorities of their home country, for each AIF managed by the AIFM and established or marketed within the EU, specific information regarding the main instruments in which it invests, its liquidity features, its counterparty and market risks, its leverage, and the results of stress tests. The UCITS Directive does not establish similar reporting requirements that allow the monitoring of specific risks associated with UCITS funds.

Against this background the FSMA, in cooperation with the NBB, is currently reviewing the existing reporting requirements of all public investment funds (including UCITS) in order to align their reporting with the European AIFMD standard. Applying most of these AIFMD reporting requirements to all Belgian funds will lead to an improved data availability, increase data consistency in Belgium in line with the European framework, and strengthen risk monitoring.

4.2. Risk assessment of the Belgian shadow banking sector *(risks within the shadow bank sector)*

While a more diversified financing may foster economic growth, non-bank financial intermediation entails risks. Credit intermediation activities of shadow banking entities contribute to the inherent pro-cyclicality of the financial system. Furthermore, financial distress in the shadow banking sector may spill over to the regular banking system through direct and indirect interconnections. The occurrence of such distress and the potential for spill-over effects are more likely when shadow

56 Systemic Risk Analysis of Investment Fund Liquidity and Leverage, Final Joint Report of the ESRB Joint ATC-ASC Expert Group on Shadow Banking and the ESRB Expert Group on Market Liquidity, June 2016.

banking activities involve bank-like risks, such as maturity and liquidity transformation, and leverage. **Based on the delineation of the shadow banking sector as explained chapter 3, metrics suggested by the FSB have been calculated with respect to both the degree of credit intermediation and the aforementioned bank-like risks for the main entities of each economic function.**

Shadow banking entities play a role in providing credit either through the direct provision of financing (e.g. lending activities or the holding of debt securities) or by supporting the credit intermediation role of banks (e.g. through credit risk transfer and securitisation through FVCs). Such credit intermediation activities contribute to the financial cycle, potentially supporting the build-up of leverage and asset price bubbles as well as potentially resulting in credit crunch externalities in the downturn. Metrics on credit intermediation aim at assessing the degree to which shadow banking entities engage in credit intermediation, by relating credit assets (CI1) or loans (CI2) to assets under management (for investment funds) or total financial assets (for other entities). While the former ratio includes debt securities, the latter only has loans in the numerator. Their maximum value is 1.

Table 4.1: Risk metrics for Belgian shadow banks *(ratios, end 2015)*

		EF1		**EF2**	**EF5**	**Interpretation**
		MMF (BE)	**Non-MMF (BE)**	**Finance companies**	**Securitisation (incl. retained)**	
Credit intermediation	CI1(1)	0.8	0.3	0.6	0.9	**Max=1**
	CI2(2)	0.0	0.0	0.5	0.9	**Max=1**
Maturity transformation	MT1(3)	0.2	0.3	-0.3	-0.1	Close to 0: LT assets have generally been funded through LT liabilities; <0:surplus of LT liab; **>0 high MT**
	MT2(4)	1.2	1.4	0.6	0.3	**>1 high MT** : short term liab are being used to fund LT assets;
Liquidity transformation	LT1(5)	1.8	1.9	0.9	0.9	Between 0 and 2 =1: ST liab equal to liquid assets; no liquidity transformation; **>1: substantial liquidity mismatch**
	LT2(6)	1.7	1.8	0.9	0.9	
Leverage	L1(7)	1.0	1.0	2.2	1,320.2	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 loans and receivables, investments in debt securities and other credit-related assets.
(2) Loans/assets under management or total financial assets.
(3) (Long-term assets of > 12 months – long-term liabilities of > 12 months – equity)/assets under management or total financial assets.
(4) (Short-term liabilities of <= 12 months + redeemable equity of <= 12 months)/short-term assets of <=12months.
(5) (Assets under management or total financial assets – liquid assets (narrow) + short-term liabilities <= 30 days + redeemable equity <= 30 days)/assets under management or total financial assets. Liquid assets in a narrow definition include cash and cash equivalents.
(6) (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 Standardised Approach for credit risk.
(7) For EF 1: assets under management/net asset value. For other EF: total financial assets/equity.

If shadow banks rely on short-term and unstable funding, they may need to engage in liquidity hoarding and fire sales of assets to meet large withdrawals in times of stress. Such a behaviour may entail adverse spill-overs to other market participants, including retail investors, and trigger illiquidity spirals, in which balance sheet mismatches and market illiquidity mutually reinforce each other. Maturity transformation is one dimension of balance sheet mismatch. In case short-term liabilities are not rolled over, it implies that longer-term assets may need to be liquidated to meet the withdrawal. The first maturity transformation metric (MT1) aims at capturing this risk by considering the extent to which long-term assets have been funded through long-term liabilities; if it is below zero, there is a surplus of long-term liabilities, the more above zero, the higher the maturity transformation. The second metric (MT2) provides an indication on the extent to which short-term liabilities are being used to fund long-term assets; the more it exceeds 1, the higher the maturity transformation.

A second dimension of the above-mentioned balance sheet mismatches is liquidity transformation. Liquidity transformation occurs when investors are offered a greater degree of access to their investments than is consistent with the ease with which the corresponding assets can be sold without a material price impact. That is, the more illiquid the assets that are sold in order to meet a withdrawal of funding, the larger is the price impact and hence, the potential spill-over effects of such behavioural response. Market liquidity, especially in times of stress, plays an important role in determining the assets' degree of liquidity. The liquidity transformation metrics look at how short-term liabilities relate to liquid assets, the latter being measured according to a narrow (LT1) and a broad definition (LT2).[57] Their value can be between 0 and 2; a value above 1 indicates a substantial degree of liquidity mismatch.

Finally, the leverage position of shadow banking entities plays an important role in the assessment of risks stemming from the shadow banking sector. Leverage does not only amplify the upside of returns, but also potential losses, thereby reducing the resilience of market participants. The implied larger sensitivity to shocks increases their vulnerability to the above-mentioned fire sale externalities and in turn their potential contribution to these. Furthermore, a large degree of leverage in shadow banking entities' balance sheets increases their potential contribution to the financial cycle as well as the scope for direct counterparty losses in case they default on their liabilities. Leverage (L1) is measured as the ratio between assets under management and the net asset value (for investment funds) or between the total financial assets and the equity (for other entities). A value of 1 indicates no leverage; the higher the value, the higher the leverage.

These risk metrics have been calculated according to the FSB methodology and are based on aggregated figures for each economic function. They were evaluated taking into account how the risks may be mitigated under stressed conditions by using all available policy tools.

The risk metrics calculated for the Belgian MMFs and non-MMF investment funds (excluding equity funds) for **EF1 revealed that liquidity transformation is 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 and are not (fully) covered by liquid assets.** The risk is lower for MMFs than for non-MMF investment funds, as the former must be liquid per definition because of the

[57] Liquid assets are considered all assets that can be easily and immediately converted into cash at little or no loss of value during a time of stress. In a narrow definition they include only cash and cash equivalents, in a broad definition, liquid assets include high quality liquid assets.

restrictions on the maturity of their portfolio assets.[58] Moreover, only MMFs of the variable net asset value type (VNAVs) are allowed in Belgium. In 2016 the FSMA has investigated the liquidity risk associated with public open-ended bond funds by means of a stress testing exercise (see the discussion in box 4.1). **The second most important risk for non-MMF investment funds relates to maturity transformation, as they invest to some extent in long-term assets financed with short-term liabilities.** As MMFs have to respect restrictions with respect to the maturity of their assets (see above), maturity transformation risk is lower for this type of funds. **Both types of investment funds have no leverage. However, the leverage ratio presented in table 4.1 can understate the true riskiness as synthetic exposures[59] are not necessarily reflected in balance sheet statistics.** Enhanced data collection is necessary in this respect.

The discussion of liquidity transformation risks in the preceding paragraphs should be nuanced by taking into account several elements:

- The risk metrics are computed on the basis of aggregated data for MMFs and non-MMF investment funds and are not taking into account the diversity of strategies, the granularity of the portfolio and the diversity of the shareholders.
- All Belgian MMFs and non-MMFs are funds with variable NAVs, hence if the secondary market liquidity of the underlying assets deteriorates, the higher liquidity risk premium will be reflected – all other things being equal – in a decline in the market value of the assets and in the funds' NAV. Clients that want to step out of the funds will thus 'pay' a higher liquidity risk premium when they want to step out in times of market stress (which would discourage them to sell in the first place, or draw in liquidity providers eager to earn the liquidity risk premium).
- A large share of the investment funds in Belgium is related to 'pension-related' assets (pension savings funds; life insurance class 23, with fiscal incentive not to sell funds before a certain period; life insurance companies' and pension fund investments in UCIs…). For contractual or behavioural reasons, the redemption risk of these funds is lower than suggested by their 'open-ended' feature. Knowledge of investor (types) is considered to be a part of the liquidity risk management of investment funds, as it is a key determinant of a fund's redemption profile.
- For structured funds, e.g. funds offering capital protection or a minimum repayment of a certain amount, there is an incentive to hold the funds until maturity date, as the algorithm-based payoff (e.g. the capital protection) is only valid at the maturity date of the investment fund.

Box 4.1: Liquidity risk in open-ended investment funds

Liquidity risk in an open-ended investment funds can arise when there is a mismatch in the liquidity of an investment fund's assets and its redemption profile, i.e. when there is a high degree of liquidity transformation. Liquidity risk can be particularly high for investment funds that offer the possibility of daily redemption while investing in rather illiquid assets. However, the relevant legislation imposes detailed asset eligibility rules on Belgian public open-ended investment funds which strongly mitigate liquidity risk for these types of funds. These funds are in general only allowed to invest in listed financial instruments, deposits, units of other investment funds subject to similar (asset eligibility) rules, and derivatives, subject to certain restrictions. Real estate, commodities, unlisted securities, loans and other alternative asset classes are excluded, in general,

58 MMFs should ensure that the portfolio has a weighted average maturity (WAM) of no more than 60 days and a weighted average life (WAL) of no more than 120 days. It should as well limit investment in securities to those with a residual maturity until the legal redemption date of less than or equal to 397 days.

59 In this connection, it may be recalled that (1) derivatives can also be used to hedge some of the risks (e.g. interest rate or foreign exchange exposures) and (2) derivatives in the funds with capital protection are used to create the exposure on the "asset".

as eligible assets for public open-ended investment funds.

As far as liquidity risk is concerned, bond funds might represent the most risky segment of the public open-ended investment sector, depending on the type of bonds in which these funds invest. Some segments of the market, such as the high yield corporate bonds or emerging markets bonds, can be considered to be less liquid. Against this background, in the first half of 2016 the FSMA has conducted ad hoc stress tests focusing on the potential liquidity risk of a sample of 16 bond funds.

The FSMA asked the asset managers managing these funds (or the investment companies, in case of self-managed investment companies) to self-assess the liquidity mismatch of these funds. First, the asset managers were asked to assess the number of days it would take to liquidate their entire portfolio under normal market circumstances. For twelve investment funds it was assessed that assets could be liquidated within one day. Within three days assets could be liquidated for fourteen investment funds, while within seven days assets of fifteen investment funds could be liquidated. For the least liquid investment fund it was assessed that assets could be liquidated within 8-30 days.

Second, the asset managers were asked to assess the number of days it would take to satisfy redemption requests under three extreme scenarios provided by the FSMA, containing both redemption shocks and shocks to the liquidity of the assets. For the first scenario asset managers were asked how many days it would take to liquidate assets in order to satisfy a redemption demand by the three largest investors under normal circumstances. For all but one investment fund[60], assets could be liquidated within a day to satisfy redemptions. The fraction of equity that the three largest investors represent in these funds varied from 5.2% to 100%. For the second scenario asset managers were asked to assess how many days it would take to liquidate 20% of total net assets in case normal trading volumes on the regulated market decreased by 50%. The third scenario asked how many days it would take to liquidate the entire portfolio under these circumstances. Under the second scenario, the asset managers estimated that the assets could be liquidated within one day for all but one investment fund.[61] Under the third scenario the asset managers estimated that the full portfolio fir six investment funds could be liquidated within one day, while within three days the portfolio of ten investment funds would have been liquidated. Within a week the portfolio of twelve funds would have been liquidated. Two remaining funds were assessed to be able to liquidate the portfolio in a time period between 8 and 15 days, and finally for the two least liquid funds liquidation could take place between 16 and 30 days.

It should be noted that liquidation of the full portfolio within one day is not an adequate objective of each investment fund. Asset managers and investment companies are responsible for the monitoring and management of liquidity risk, taking into account both the liquidity of the asset side and the redemption profile of the liability side of an investment fund, such as the redemption frequency and the composition of its investors. For instance, many funds that invest in less liquid assets tend to have a lower redemption frequency, i.e. weekly or twice per month instead of daily.

After the stress test was conducted the FSMA followed up on these results by a more in-depth analysis of liquidity risk and risk management practices of the investment funds that had, according to the stress test results, the strongest potential for materialisation of a liquidity risk event. Based on the answers that were received for these specific stress scenarios no significant liquidity mismatch was detected, but the FSMA remains committed to follow-up on the (management of) liquidity risk of the public open-ended investment funds under its supervision.

60 One investment fund participating in the stress testing exercise had an asset in the portfolio it considered to be illiquid at the time of the stress test. The asset manager has communicated to the FSMA that the asset was sold afterwards.

61 Ibid.

To ensure that asset managers and investment companies are fully capable to adequately deal with liquidity risk the FSMA has further taken the initiative to draft a proposal on legislative changes that make additional liquidity management tools available: swing pricing, anti-dilution levies and redemption gates. Swing pricing and anti-dilution levies are two liquidity management tools making the redeeming investor supporting part of the redemption costs (typically associated with selling of less liquid assets). These liquidity tools reduce the so-called *first mover advantage*: when redemption costs are borne by all investors, redeeming and remaining alike, there is an advantage for investors redeeming early, as they do not bear the full cost of redemption. Swing pricing and anti-dilution levies can thus help to make investment funds that invest in less liquid assets less susceptible to runs.

Redemption gates restrict the amount that can be redeemed at one point in time. If redemption requests exceed a certain threshold, part of the requests are transferred to the next period. Gates can be used to alleviate the pressure on asset manager in case elevated redemption requests make it difficult to fulfil these requests, while at the same time maintaining the fund's investment strategy.

In addition to making these new liquidity management tools available for public open-ended investment funds, the FSMA is also increasing its monitoring of the potential liquidity risk associated with public open-ended investment funds. The new periodic reporting (see section 4.1.2.) will include data on the liquidity profile of the asset side as well as the liability side. Furthermore, the reporting contains information on the breakdown of the ownership of units by investor type, information on investor concentration, and (optional) information on liquidity stress tests.

A caveat has to be mentioned with respect to **the risk metrics for EF2**. By lack of granular data on the counterparties, metrics can only be calculated for the total of the so-called prudentially consolidated and non-consolidated entities. Results reveal that **the entities' position with respect to liquidity transformation is rather comfortable and maturities on both sides of the balance sheet are relatively balanced. They do have leverage, but it is relatively contained compared to banking sector averages.**

As to **EF5**, by lack of granular data, risk metrics can only be calculated for the total of Belgian securitisation vehicles and it is not possible to provide risk metrics for non-retained securitisation only (only 15% of the total). The judgmental approach for EF5 revealed that **leverage is the most important risk. Their position with respect to liquidity transformation is rather comfortable and maturities on both sides of the balance sheet are relatively balanced.** If there are no maturity or liquidity mismatches, one could argue that 'leverage' should in principle not be a problem given that there will never be a need to liquidate the assets – provided that indeed there is no liquidity or maturity mismatch in the balance sheet.

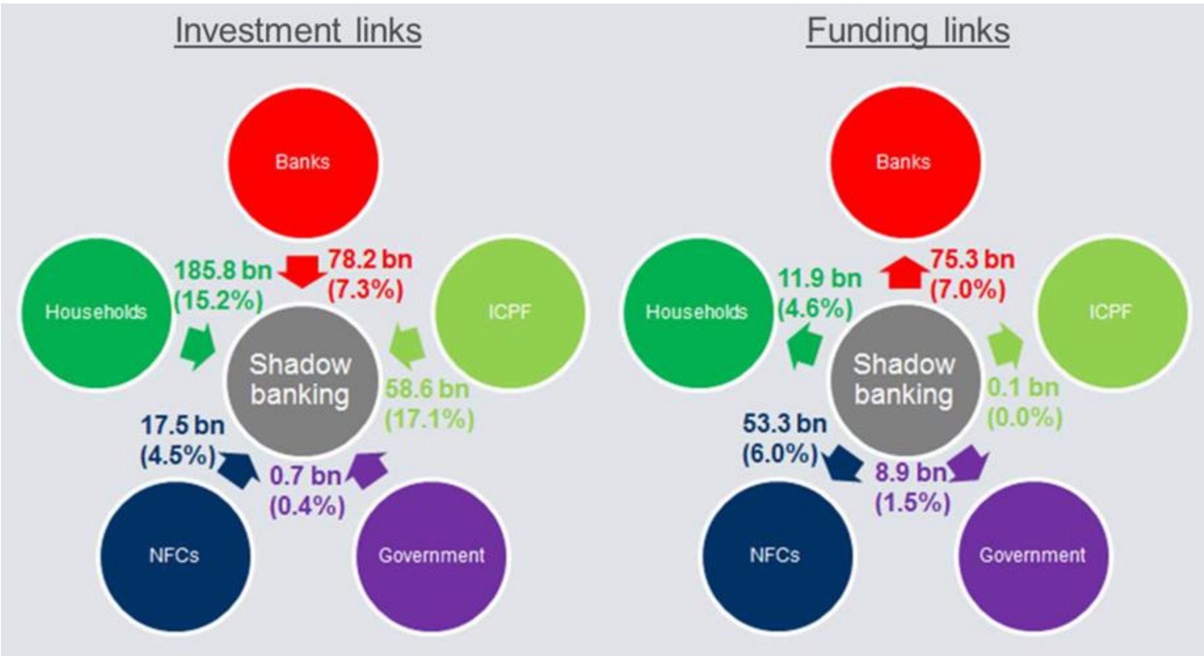
4.3. Interconnectedness of the Belgian economy with shadow banking entities worldwide

4.3.1. Scope and methodology

In addition to the monitoring of the Belgian shadow banking sector (see sections 3.1. and 4.2. above), **it is important to assess the extent to which Belgian financial and non-financial sectors have links with shadow banks, regardless of whether these are located in Belgium or abroad.** As discussed in the introduction, shadow banks may impact other economic sectors through both direct and indirect linkages. In this part of the report we focus on the direct linkages between shadow banks worldwide and the Belgian economy. Shadow banks worldwide contain both Belgian entities belonging to the shadow banking sector and shadow banks in other countries of the EMU and outside the EMU. For the shadow banks outside the EMU, the available data is characterised by important data gaps, however. For the Belgian entities, the definition of the shadow banking sector coincides with the one based on the FSB economic functions, as described in section 3.1. above. For foreign entities, available data sources do not allow a delineation of the foreign shadow banking sector along the FSB economic functions; the conservative approach taken in the analysis below is to consider all non-bank non-insurance financial counterparties in EMU countries other than Belgium (and outside EMU, where this data is available) as potentially part of the shadow banking sector, leading to an overestimation of the interconnectedness with "real shadow banks".

The scope of the monitoring exercise encompasses the Belgian banking, insurance and pension fund sectors as well as the Belgian non-financial private sector (households and non-financial corporations). The aim of the exercise is to identify and assess potential vulnerabilities stemming from direct interconnections to shadow banks on both the asset and liability side of these sectors' balance sheets. Such vulnerabilities may result in credit risk, market risk, liquidity risk, reputational risk and procyclicality risk. In this section, these risks are assessed mainly from a quantitative perspective (size of the link) and, where possible, a qualitative characterisation of the type(s) of transactions covered in the identified link. **The additional mitigating factors stemming from available regulations, covering shadow banking entities as well as Belgian economic sectors to which they are linked, are discussed in chapter 5 of this report.**

***Chart 4.1: Interconnectedness mapping – starting point*[1]** *(end 2015, in % of the originating sectors' consolidated assets/liabilities[2])*



Source: NBB financial accounts

Notes:

[1] Shadow banking =

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

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

ICPF = insurance companies and pension funds

NFCs = non-financial corporations

[2] Data for households are expressed in % of total unconsolidated assets/liabilities.

A first broad — though incomplete — overview of the links between Belgian residents and *potential* shadow banks worldwide can be given on the basis of financial accounts data (chart 4.1). 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). Therefore, while providing broad orders of magnitude and suggesting potentially important linkages for each of the Belgian financial and non-financial sub-sectors, the data shown in chart 4.1 should certainly not be taken at face value for assessing the interconnectedness of Belgian residents with shadow banks worldwide.

To arrive at a more detailed mapping of Belgian residents' interconnectedness with domestic and foreign shadow banks, various data sources were used : like the delineation of the Belgian shadow banking sector in chapter 3, the monitoring framework relies on data from the financial accounts, but complements these, where available, with data sources based on supervisory reporting, credit registers, firm-level annual accounts, the centralised securities databases and the ECB financial corporations statistics. This wide set of data sources helps to qualify the nature of the exposures and identify better some of the counterparties behind the shadow bank links. Due to the challenge of the analysis and the related data gaps, some of these sources refer to different (recent) points in time; the structural findings are believed to remain valid nevertheless.

Each of the different data sources used in this section for the interconnectedness analysis is associated with various caveats preventing the exact identification of the size of the links (on the asset or liability side) with entities that should be considered as "real shadow banks", as defined in chapter 3. One difficulty has to do with the fact that shadow banks are as such not identified in the available statistical data, so that proxies have to be used. While they are, to a large extent, part of the statistically better defined sector of the "other financial intermediaries" (OFIs), the "real shadow banks" are often only a small subset of this larger subsector of the financial system. Another difficulty in the analysis relates to the fact that many entities that could at first sight be considered as shadow banks are actually part of the consolidation scope of regulated financial institutions and should thus be excluded from the definition of the shadow bank system with which Belgian residents are interconnected (see in this connection as well the discussion in chapter 3 above).

It should thus come as no surprise that the analysis of interconnections had to combine various complementary sources of information in order to distil an informed assessment of the orders of magnitude of the size of Belgian residents' links with "real shadow banks" and of the nature of the financial transactions involved. Additional efforts to close data gaps on the shadow bank sector (worldwide) would seem necessary in order to have a narrower but more complete picture about the size, types of transactions and types of counterparties of Belgian residents' links with "real shadow banks". This being said, **the analysis performed for the Belgian banks, insurance companies, pension funds, households and non-financial corporations suggests (as detailed in the sub-sections below) that while links with the OFI-sector can be important in some cases, the interconnectedness with "real shadow banks" is probably often limited and concentrated in activities that are part and parcel of normal business affairs. Once data availability is improved, these conclusions could be further refined in future analyses.**

4.3.2. 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.

In the prudential reporting, this interconnectedness with financial institutions is relatively well documented, whereby generally a clear distinction is made between links with other banks and links with other financial institutions. The consolidated supervisory reporting FINREP is thus an important source of information to assess orders of magnitude of the exposures and related risks linked to Belgian banks' interconnectedness with other financial institutions worldwide. However, this reporting does not allow to pinpoint banks' exposures to counterparties that fall under the scope of "shadow banks". This information can be found (with some limitations) in the financial accounts, but with the important caveat that it also captures the intra-group / intra-conglomerate transactions (which tend to be very important: see below), and which should be excluded from the definition of "real shadow banks" if they pertain to exposures that are consolidated into the accounts of regulated banks or insurance companies for example.

Table 4.2 summarises the scope and caveats of the prudential reporting FINREP and the financial accounts in analysing Belgian banks' interconnectedness with other financial institutions in general and shadow banks in particular. It should be noted that due to differences in scope, both data sources cannot be fully reconciled with one another. They provide nevertheless complementary views, which are further discussed below.

Table 4.2: FINREP versus Financial Accounts when analysing Belgian banks' interconnectedness

	FINREP	**Financial accounts**
Reporting agents	All BE consolidating banks (excluding BNYM and Euroclear)	All resident banks
Reporting scope	Consolidated basis: Includes exposures of foreign subsidiaries, intra-group exposures are netted	Territorial basis: Includes intra-group exposures, excludes foreign subsidiaries
Counterparties		
BE	All other financial institutions (including insurance companies, pension funds and other non-shadow bank entities)	Shadow bank entities according to the FSB narrow definition
Other EMU	All other financial institutions (including insurance companies, pension funds and other non-shadow bank entities)	Investment funds and other financial intermediaries
Other non-EMU	All other financial institutions (including insurance companies, pension funds and other non-shadow bank entities)	Not included
Type of exposures	On- and off-balance sheet	On-balance sheet

Source: NBB

4.3.2.1. Links on the asset side

Starting from the larger perspective which is provided in FINREP, **Belgian banks' total exposures to other financial institutions amounted to € 50 billion** (i.e. 5% of the total assets) at the end of 2015. Less than half of this amount (€ 16 billion) consists of exposures vis-à-vis Belgian counterparties. Other financial institutions from the UK, US, the Netherlands and Germany account for respectively

€ 8.6, 4.3, 3.5 and 3.4 billion. An important part of the banks' exposures to these other financial institutions are collateralised, although in very different forms.

Around half of this € 50 billion FINREP exposure is constituted of **loans and advances (€ 26 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),** as € 8 billion of these loans are identified in FINREP as reverse repurchase loans and the € 15 billion reported as term loans certainly also include other types of SFTs (e.g. securities lending with investment funds, related insurance companies or CCPs). Yet, the exact amount of Belgian banks' SFTs within the total € 26 billion of loans and advances to other financial institutions cannot be established with more precision on the basis of the available data.

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. Data from the financial accounts confirm indeed that part of banks' loans to domestic and foreign other financial intermediaries (also including — in the nomenclature of the financial accounts — leasing, factoring, mortgage and finance companies) 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). This interpretation would be consistent with the finding that Belgian banks also own about € 6 billion of equity stakes (in addition to loan funding) in these domestic shadow bank companies.

On the basis of the financial accounts data, **Belgian banks' loans to the shadow bank sector are estimated at € 46 billion** (end of March 2016) and most of these loans (€ 35 billion) are claims on *domestic* other financial intermediaries (OFIs), which confirms the hypothesis that many of these may be reflecting intra-group / intra-conglomerate exposures. The central corporate credit register (CCCR) constitutes a useful source of information to detail banks' portfolio of loans to these domestic non-bank financial intermediaries.

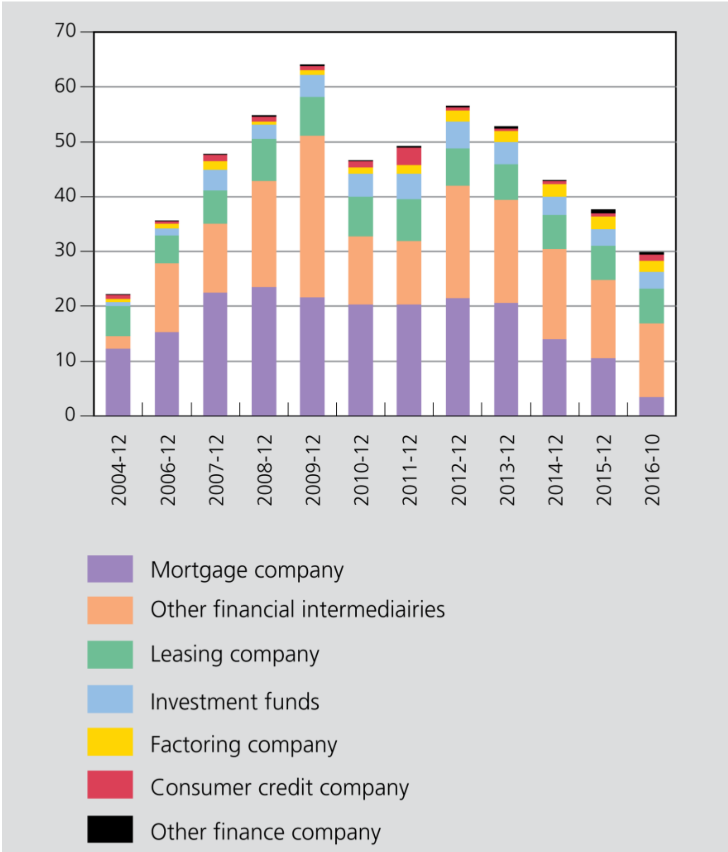
As illustrated in the chart 4.2, CCCR data indicate that these exposures are relatively diversified across different types of counterparties:

- Over the last five years, the (residual) sub-category of "other financial intermediaries" represented the largest share of this portfolio but this heading encompasses a wide variety of entities, including private equity companies and trade and export finance companies. The outstanding amount of loans to this group of companies has decreased however from € 20 billion end 2012 down to € 13 billion in the third quarter of 2016.

- Besides this subgroup of the "OFIs", leasing companies represent the second largest share in banks' portfolio of loans to non-bank financial intermediaries. Chart 4.2 shows that the outstanding amount of loans to leasing companies has remained broadly stable (around € 6.5 billion) since 2010 while in contrast, loans to mortgage companies have starkly decreased, from € 22 billion at the end of 2012 to only € 3.5 billion in the third quarter of 2016.

Another breakdown of the financial accounts also shows that slightly less than half of banks' loans to shadow bank entities are **short-term instruments** (with original maturity equal to one year or less). Given that the amount of on demand/short-notice loans to other financial institutions reported in FINREP is very limited (€ 1 billion at the end of 2015), this suggests that a large part of the exposures shown in the financial accounts are in fact short-term intra-group funding exposures.

***Chart 4.2: Belgian banks' loans to other financial intermediaries[1]** (€ billion, unconsolidated data)*



Source: NBB, Central Corporate Credit Register

Note:

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

The CCCR data in chart 4.2 further indicate that banks' loans to **investment funds** accounted for € 3 billion at the end of September 2016. The volume of authorised credit lines to these entities was yet much larger amounting to € 7.5 billion at the end of Q3 2016. This indicates that investment funds had access to € 4.5 billion of **undrawn credit lines** at Belgian banks at the end of Q3 2016. These credit facilities are often provided to investment vehicles sponsored by the credit-providing banks and exist for technical reasons, in particular to cover technical overruns or to bridge the time gap between transaction and settlement date for transactions concluded by investment funds.

Following the same logic, it can be estimated that undrawn credit lines provided by Belgian banks to other financial intermediaries reached € 7.4 billion at the end of Q1 2016. These **off-balance sheet exposures** could potentially represent a liquidity risk if they are activated in a stressed period.

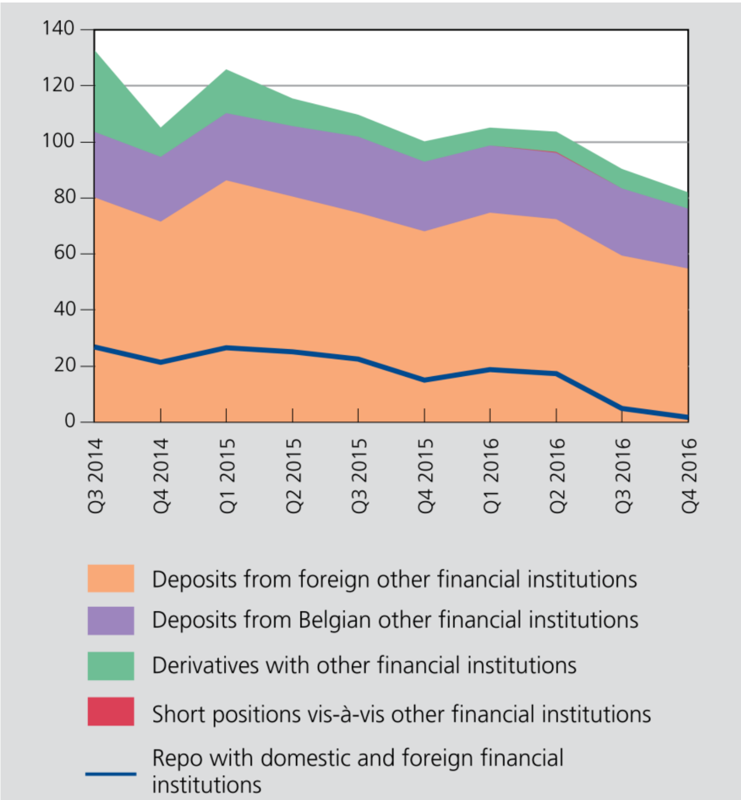
As mentioned above, FINREP data indicate that loans represented about half of the banks' on-balance sheet exposures of € 50 billion to other financial institutions at the end of 2016. Besides loans, Belgian banks also owned about € 15 billion of **debt securities** issued by other financial institutions. These debt securities represent 8.5 % of the total bond portfolio of Belgian banks and the bulk of these exposures are toward foreign counterparties (resp. € 3.3, 1.9, 1.8 for US, ES, NL and FR OFIs). Some of these securities (estimated at € 6.2 billion) are securitisations or structured products issued by **financial vehicle corporations** (FVCs), sponsored or not by the bank that bought the security. Securities issued by entities which are not sponsored are traditionally owned for investment purposes.

In line with FINREP data, the financial accounts indicate that Belgian banks owned € 13 billion of debt securities issued by foreign other financial intermediaries and these are to a very large extent (more than € 12 billion) long-term debt securities. Furthermore, what is not shown in FINREP but appears in the financial accounts is banks' portfolio of debt securities issued by FVCs which fall in the prudential consolidation perimeter of Belgian banks. This portfolio, which is estimated at € 64 billion, is composed of retained securitisations issued by the bank for liquidity transformation purposes and is not considered as an exposure to the shadow bank sector.

4.3.2.2. Links on the liability side and derivatives

On the liability side of their balance sheet, Belgian banks receive **substantial funding from other financial institutions** (€ 100 billion at the end of 2015, of which more than € 90 billion in deposits; i.e. 10% of their total balance sheet). As shown in chart 4.3, most of this funding originates from deposits of foreign institutions (€ 93 billion at the end of 2015). This chart also illustrates that the funding received by Belgian banks from other financial institutions can be quite volatile. Over the second half of 2016, deposits from other financial institutions decreased by more than € 20 billion, mainly because banks' repo activities were reduced due to changes in market conditions.

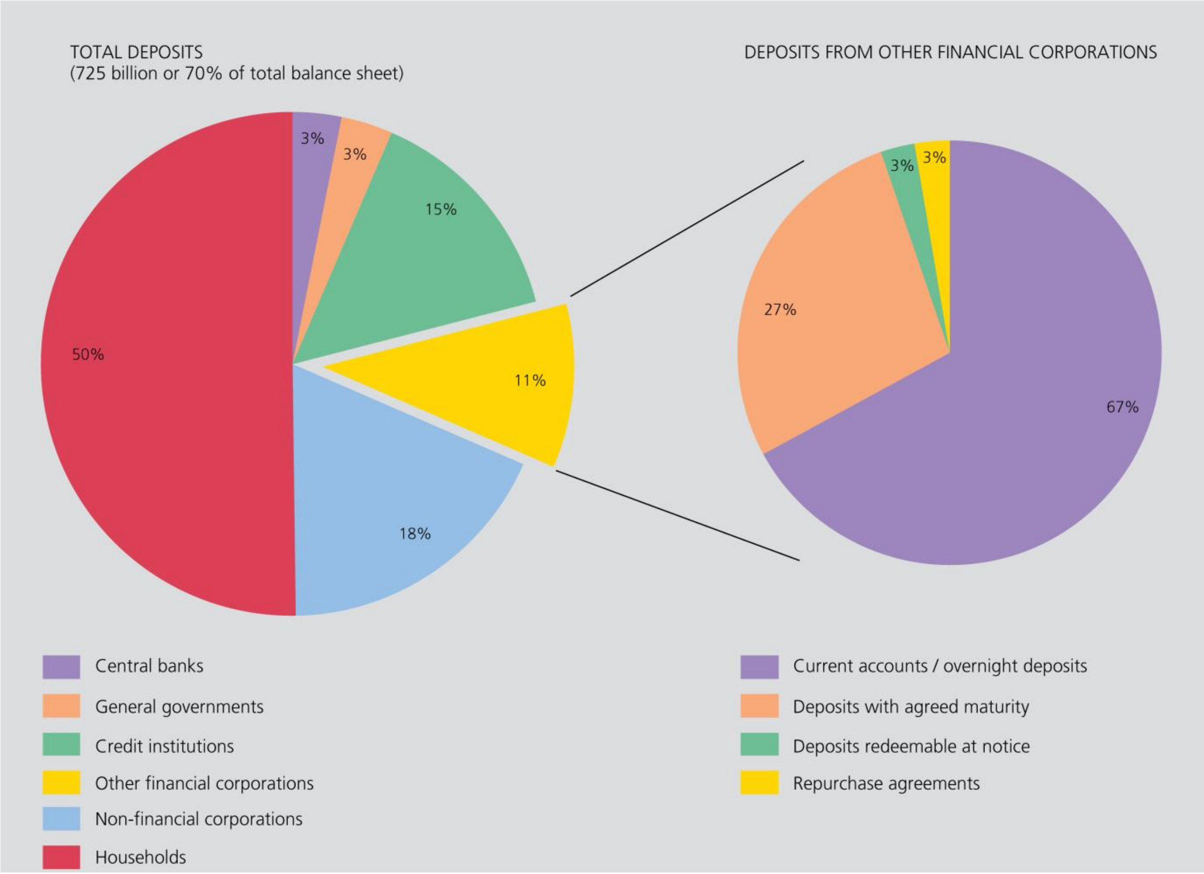
Chart 4.3: Belgian banks' funding received from other financial institutions *(€ billion, consolidated data)*



Source: NBB, FINREP

Chart 4.4 shows that deposits from other financial institutions accounted at the end of 2016 for about 10% of the sector's total deposits. About two third of these deposits from other financial institutions are in sight accounts and probably consists to a certain extent in non-operational deposits, left in short-term deposits due to the lack of investment alternatives. These deposits therefore represent a liquidity risk for which banks have to maintain a buffer of highly liquid assets (as required under the LCR treatment for such non-operational deposits). This buffer consists of cash or assets that can be easily converted in cash to meet their liquidity needs for 30 days in a stressed scenario.

Chart 4.4: Breakdown of total deposits of Belgian banks *(end 2016)*



Source: NBB, FINREP

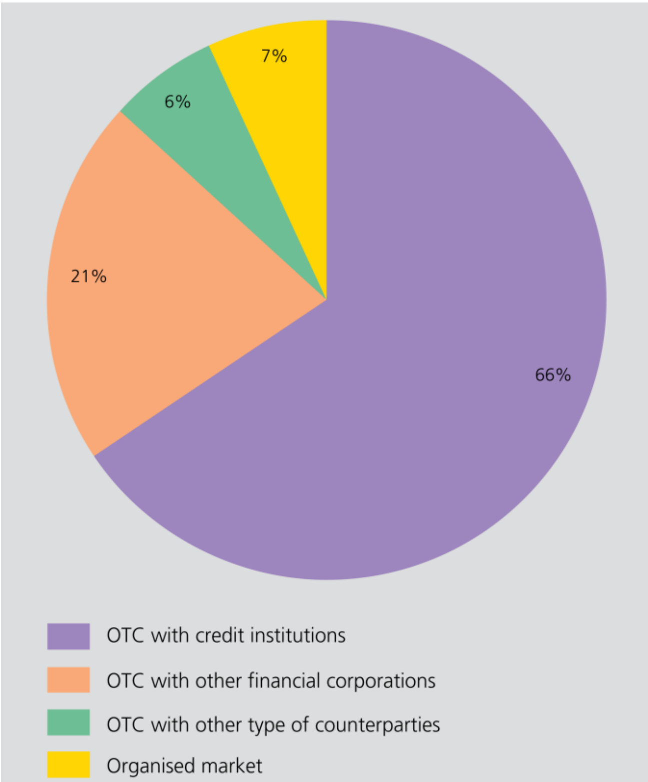
Furthermore, part of the deposits from other financial institutions reflects banks' securities financing transactions and can be seen as the counterpart of the securities financing transactions already highlighted on the asset side. At the end of 2015, € 15.4 billion of deposits from other financial institutions were specifically identified as repurchase agreements in FINREP. Other funding received in the context of securities financing transactions could also be booked under the € 25-billion reported as "deposits with an agreed maturity".

A significant share of banks' deposits from other financial institutions originates from related entities. Given the importance of the "bank-insurance" model in Belgium, the volume of Belgian banks' transactions with insurance companies or pension funds of the same group is known to be relatively high. Given that these related entities are often regulated companies, such intra-conglomerate transactions are not taken into consideration in the delineation of the shadow banking sector in the financial accounts.

FINREP data show in addition that some of these deposits, estimated at € 7 billion at the end of 2015, are linked to the asset management business of Belgian banks. This is because **investment funds** managed by Belgian financial groups logically use the in-house banks for their deposits[62], resulting in deposits for both operational (operational cash buffer) and investment purposes (strategic asset allocation). In the financial accounts, total deposits of investment funds at Belgian banks were estimated at € 15 billion at the end of March 2016. The liquidity risk associated with these deposits largely depends on the type of fund and the purpose of the deposit.

It can thus be concluded that a significant share of the € 93 billion of deposits from other financial institutions reported in FINREP originates from non-shadow bank entities (e.g. insurance companies and pension funds) — in which case they should not be qualified as funding received from the shadow bank sector — or from "related companies" (e.g. investment funds or asset management companies of the same financial conglomerate). In the financial accounts, there remains still € 35 billion of deposits from other financial intermediaries (of which € 30 billion from foreign OFIs) and € 4 billion of deposits from finance vehicle corporations. Further investigation has shown that **probably more than half of the deposits from foreign OFIs originate from finance companies linked to Belgian banks. In fact, these bank-owned finance companies — together with FVCs — are used by the banking sector to issue bonds (senior unsecured, subordinated, certificates of deposit, structured notes ...). The proceeds of these issuances are often deposited at the bank or used to provide funding to the bank in the form of loans or bonds.**

Chart 4.5: Breakdown of the notional amount of the derivative portfolio of Belgian banks *(end 2016)*



Source: NBB, FINREP

[62] The diversification limits applying to UCITS funds include deposits diversification.

A final type of links between Belgian banks and shadow banking entities is related to their hedging transactions. While most **derivative transactions** are executed with other credit institutions as counterparty, some transactions take place over-the-counter with other financial institutions. Chart-4.5 shows that indeed about 20% of the notional amount of Belgian banks' derivatives is executed over-the-counter with (mainly foreign) other financial institutions. In terms of market value, these derivatives amounted to € 4.5 billion (or less than 1% of Belgian banks total balance sheet) at the end of 2016. This figure is in line with the amount reported in the financial accounts. Some of these transactions are known to be micro-hedges concluded with credit insurers and other types of specialised entities to cover specific risks. Since 1 March 2017, new initial margin and variation margin requirements are also applicable for non-centrally cleared OTC derivatives in Europe. These requirements reduce the counterparty risk related to derivative exposures of Belgian banks. In addition, it should also be mentioned that the carrying amount of banks' OTC derivative transactions with other financial corporations is quite negligible as it represents less than 1% of the total balance sheet of Belgian banks.

4.3.3. Insurance companies and pension funds

Chart 4.1 showed that, based on financial accounts data for the end of 2015, the shadow bank exposures of the Belgian insurance companies and pension funds amounted to respectively € 12 billion for the pension funds sector[63] — mainly in the form of shares in investment funds, not including equity funds — and € 47 billion for the insurance sector. [64] With € 31 billion, investment funds (excluding equity funds) also dominate the insurance sector's exposures, with these assets being held as counterpart for unit-linked 23 contracts or other (life or non-life) technical insurance provisions or as investment in the insurance companies' own investment portfolio. The remaining € 16 billion of shadow bank exposures in the insurance sector represent mainly holdings of debt securities (corporate bonds, incl. bonds guaranteed by international institutions like the European Investment Bank) and a small amount of equity which are issued by entities that are part of the OFI (€ 15 billion) and FVC (€ 1 billion) financial accounts sectors. On the liability side, pension funds or insurance companies do not receive funding from the shadow bank sector.

As shown in chart 4.6, **the prudential Solvency II data for the Belgian insurance sector confirm the orders of magnitude — € 42.1 billion total exposures, of which more than half are investment funds (€ 25.4 billion, excluding equity investment funds) — and allow a further refinement for the nature of these exposures by identifying exposures that should not be considered as "real shadow bank exposures".** A significant part (€ 18.8 billion) is related to the unit-linked class 23 technical provisions on the liability side of insurance companies' balance sheets.

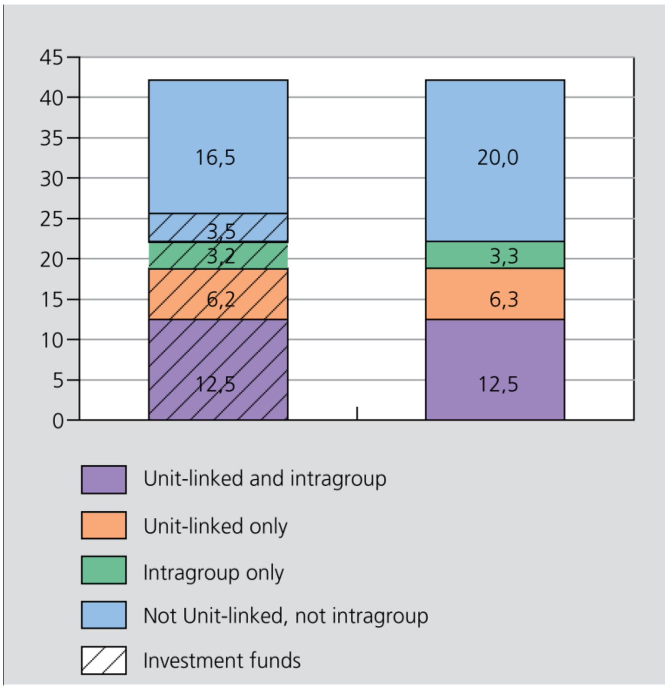
The class 23-related investment funds (excl. equity investment funds) account for almost 100 % of the € 18.8 billion of shadow bank exposures in the insurance sector that is related to the unit-linked activities in the Belgian insurance sector. Of these € 18.8 billion, € 12.5 billion concerns investments funds 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). Unit-linked investment funds do not generate any market risk for the insurance company, as this market risk is transferred to the policy-holder. The nature of these asset management-like class 23 contracts is varied and also includes products with capital protection (for further details, see the subsection on the insurance sector in section 2.5.). Whereas these exposures therefore do not bear any market risk for the Belgian insurance sector, they may entail a reputational risk to step in in case the funds do not manage to redeem clients' initial investment at withdrawal.

---

63 Section 2.6 provides more details on the holdings of investment fund units by pension funds in general.

64 Section 2.5 provides more details on the holdings of investment fund units by insurance companies in general.

***Chart 4.6: Insurance sector's shadow bank exposures** (€ billion, Solvency II data)*



Source: NBB

The investments in non-unit-linked investment funds thus amount to around € 7 billion (or 2.8% of insurance companies' financial assets net of unit-linked financial assets) of which 40% relates to intra-group investment (mainly bond) funds. The remaining part of non-unit-linked funds consists of bond funds, money market funds, mixed funds and other types of funds. Hence, market risk stemming from investments in funds is overall very limited. **Belgian insurance companies also hold € 16.5 billion of shadow bank assets other than investment funds, which mainly consist of corporate bonds.** In light of the overall limited relative amount of the exposure (3% of financial assets net of unit-linked financial assets), related credit and market risk are low. Further mitigating factors to the associated credit risk is that **more than 10% of these exposures is collateralised and the remaining part generally consists of plain-vanilla bonds with investment-grade ratings**.

4.3.4. Households[65]

4.3.4.1 Connections to the shadow banking sector

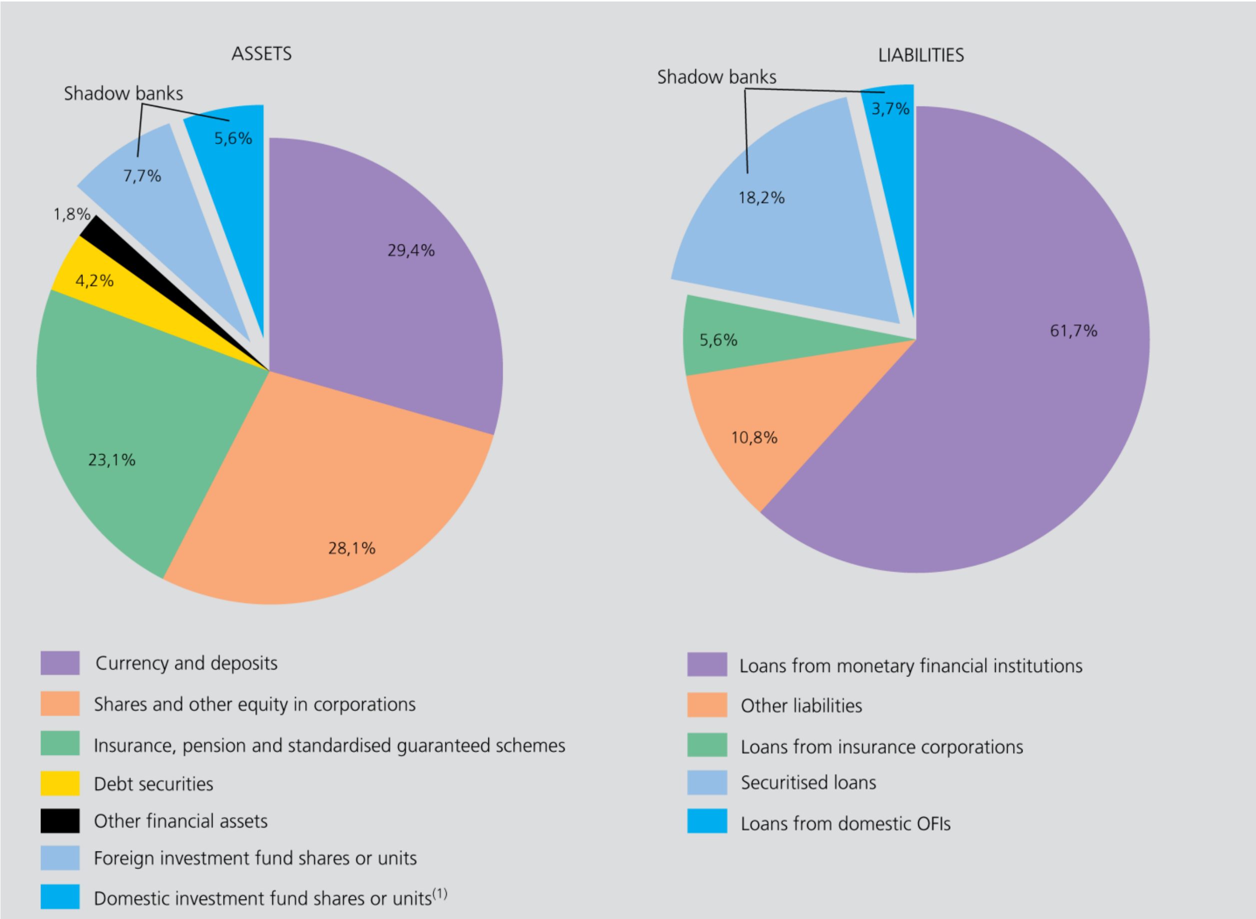
Financial accounts data show that Belgian households have invested a substantial fraction of their financial wealth in domestic or foreign investment funds. These investments totalled € 177.3 billion at the end of 2016, accounting for 13.3% of their total financial assets outstanding[66]. The importance of these funds in households' portfolio is however lesser than that of life insurance schemes, pension funds and similar financial products.

---

[65] Reference: Basselier R. and Langenus G. (2014), "Recent changes in saving behaviour by Belgian households: the impact of uncertainty", NBB Economic Review, December, 53-62.

[66] An additional amount, representing about 0.7% of household's total financial assets, is invested in equity investment funds. According to the approach described in Section 3.1., this type of funds is not part of the shadow banking sector. Moreover, 1.1% of their financial assets is allocated to domestic or foreign OFIs in the form of equity or debt securities. The main recipients of these investments are private equity companies or similar corporations, which are not considered as part of the shadow banking sector either.

***Chart 4.7: Breakdown of households' financial assets and liabilities** (% of total at the end of 2016)*

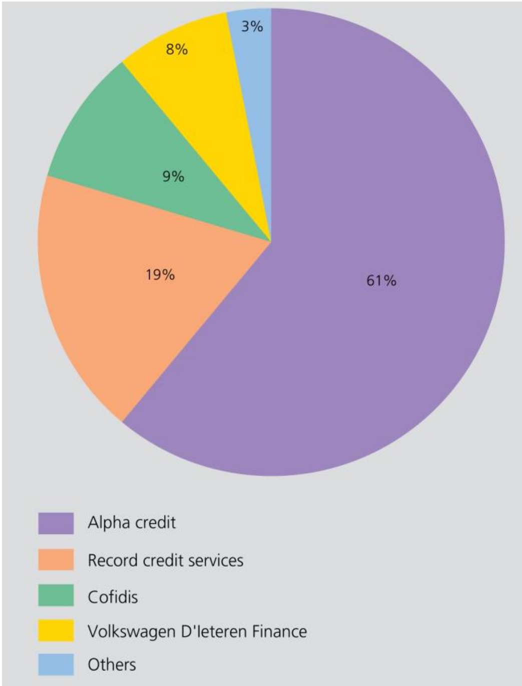


Source: NBB (Financial accounts statistics)

Note:
[1] Excluding equity investment funds.

On the liability side, a large part of the loans granted to Belgian households results at first sight from shadow banking activities: **18.2% of their total liabilities consist of securitised loans (mainly mortgage loans) and 3.7% of that same total are consumer credits originating from various non-bank financial intermediaries. A more thorough examination of the data reported by financial institutions has nonetheless shown that virtually all of the asset-backed securities created through the securitisation of mortgage loans to households are 'retained' in the balance sheets of the banks from which they originate.** They are actually used as collaterals within the framework of the Eurosystem's refinancing operations. **Moreover, it appears that the largest consumer credit institutions, which are included in the "other financial intermediaries" (OFIs) in the financial accounts statistics, are also linked to the traditional banking sector that funds them mainly by means of intra-group loans** (see section 4.3.2.1). Based on their balance sheet totals, the two main players are Alpha Credit, which is part of the BNP Paribas Group, and Record Credit Services, a subsidiary of ING. As they fall within these banks' consolidation scope, these corporations are not considered as a component of the shadow bank sector. Nevertheless, not all consumer credit institutions are connected to resident banks. This is notably the case of Cofidis, a joint venture of Crédit Mutuel, a French bank, and Argosyn, a financial service company whose headquarter is also located in France. Another consumer credit institution that holds a large amount of financial claims, Volkswagen d'Ieteren Finance, is a subsidiary of the eponymous automotive dealer.

Chart 4.8: Largest consumer credit institutions in Belgium *(% of sector's total assets, data for 2015)*



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

4.3.4.2. Risk assessment

Households' exposure to investment funds may entail market risks, if asset prices were to decline. Theoretically, such a drop in their financial wealth could induce households to increase precautionary savings and reduce consumption spending, thereby burdening economic activity. According to the results of the last wave of the Household Finance and Consumption Survey (HFCS), holdings in mutual funds – and the associated risks – are however concentrated in a relatively small part of the Belgian population, which is also likely to be the most resilient to a loss in the value of these assets. Whereas around one fourth of Belgian households are in possession of mutual funds shares, more than half (51.3%) of the total outstanding amount of these shares is actually held by only 1% of them, as illustrated in the Lorenz curves in chart 4.9. In particular, this concentration is significantly higher than that observed for life insurance subscriptions. Moreover, households that invest in mutual funds are also characterised by higher incomes, as well as by a housing and financial wealth that is both larger and diversified than that of the rest of the population. The fact that these households are in a better position to withstand a fall in asset prices also suggests limited wealth effects linked to the value of investment fund shares[67].

By granting consumer credits, certain OFIs could to some extent contribute to pro-cyclical funding of the non-financial private sector, with credit provisioning expanding in economically buoyant times while contracting in the event of a downturn in the financial cycle. As discussed above, leaving aside those obtained from specialised subsidiaries of the traditional banks, these credits mainly originate from automotive dealers and their overall amount is relatively limited. Therefore, any risk of pro-cyclical funding of households by the shadow banking sector appears to be very confined.

---

67 This is furthermore consistent with the econometric results reported by Basselier and Langenus (2014) who, using Belgian macroeconomic data, do not find any statistically significant relationship between private consumption and households' net financial wealth using.

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.

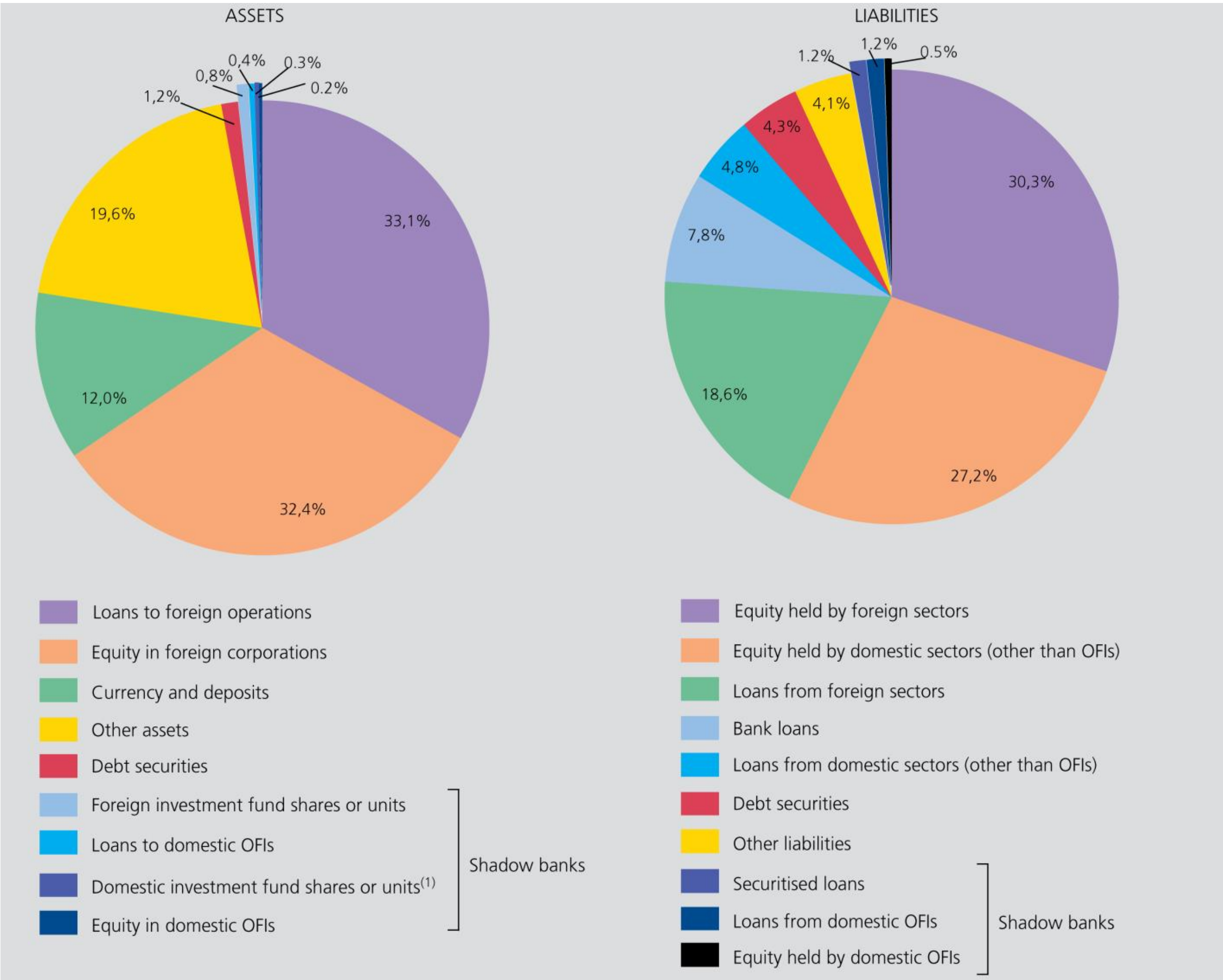
[2] Vehicles, valuables, bonds, value of non-self-employment private business, publicly traded shares, managed accounts, money owed to households and others.

4.3.5. Non-financial corporations

4.3.5.1. Connections to the shadow banking sector

Like households, Belgian non-financial corporations (NFCs) have invested a fraction of their financial wealth in domestic and foreign investment funds that are part of the shadow banking sector. Contrary to households, however, the total outstanding amount of these holdings is limited; it accounts for slightly more than 1% of NFCs' consolidated financial assets. As evident from chart 4.10, the use of investment funds by Belgian businesses is also marginal in comparison with the liquidities they hold in bank accounts. In addition, as already mentioned above, some NFCs, such as automotive dealers, have also intragroup links to domestic OFIs, which translates into equity investment in and intercompany loans to that sector. These connections account altogether for 0.6% of NFCs' consolidated financial assets.

Chart 4.10: Breakdown of non-financial corporations' financial assets and liabilities *(% of total at the end of 2016, consolidated data)*



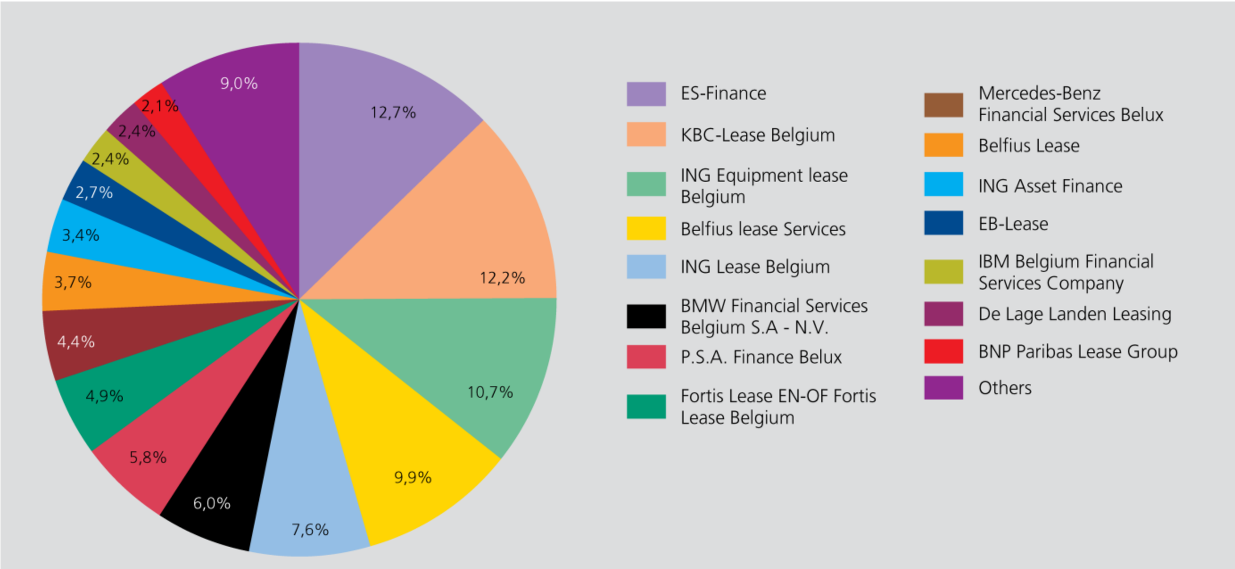
Source: NBB (Financial accounts statistics)

Note:

[1] Excluding equity investment funds.

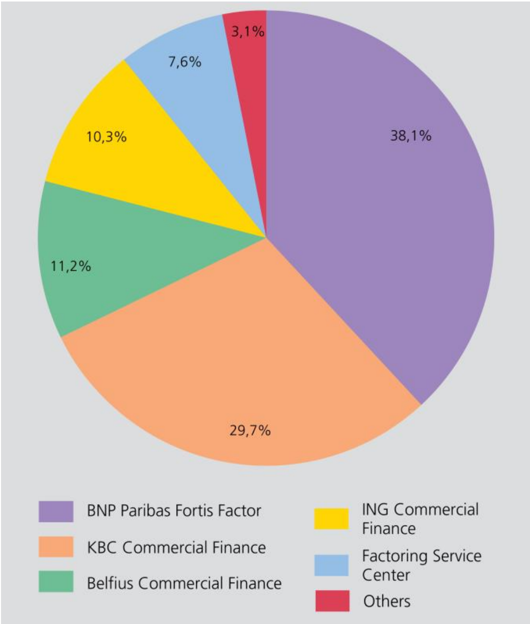
On the liability side, a large part of NFCs' direct links to shadow bank entities relates to **securitised loans**, which **represent 1.2% of their consolidated liabilities.** However, like those created from mortgage loans, the bulk of these asset-backed securities are **retained in the balance sheets of** their originators, namely **the main credit institutions active in Belgium. Other financings are provided by** firms included in the domestic OFIs, such as **factoring corporations, leasing enterprises, as well as private equity companies and similar enterprises (e.g. privak/pricaf or portfolio companies). The latter are however not considered as a part of the shadow banking sector** according to the methodology discussed in section 3.1. **As far as leasing and factoring are concerned, the observations made above for consumer credit also hold for these activities, which are mostly conducted by specialised subsidiaries of traditional banks** (see chart 4.11 and chart 4.12). This is especially true for factoring corporations: about 90% of the total assets held by these companies are actually indirectly owned by the four largest credit institutions. Unsurprisingly, automotive dealers are also involved in leasing services through dedicated subsidiaries, the most significant players being BMW, PSA and Mercedes-Benz (see chart 4.11).

Chart 4.11: Largest leasing enterprises in Belgium *(% of sector's total assets, data for 2015)*



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 2015)*



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

Finally, it should also be noted that no data is available on potential funding received by Belgian NFCs from foreign shadow banks. However, based on partial information available from statistical reporting, this amount is assumed to be very limited.

4.3.5.2. Risk assessment

In view of the relatively thin connections between Belgian NFCs and the shadow bank sector, the associated risks are assessed to be relatively contained. In particular, regarding the market risks that stem from NFCs' holdings in investment fund shares, the number of firms involved is likely to be limited. No specific information in this regard is available from the annual accounts filed by Belgian NFCs, but it nonetheless appears that only 13.5% of them have reported some current investment (where non-fixed financial assets classified, including also debt securities) in 2015. Typically, these are also firms characterised by a sound financial position and ample liquidities to invest. Since the exposure on the liability side, which consists mainly of leasing contracts with automotive dealers, is also overall limited, the contribution of the latter to the pro-cyclicality of credit to NFCs is deemed to be confined as well.

CHAPTER V: Current regulation and ongoing policy work

5.0. Introduction

The term 'shadow banking sector' has a somewhat negative connotation and gives the impression that entities considered as shadow banking entities escape from regulatory requirements. This chapter shows that shadow banking entities are subject to regulation, although in a different manner than banks and insurance companies and focusing on consumer protection. It describes the existing and ongoing regulatory framework for shadow banking entities, asset managers and investment funds in view of their vulnerabilities detected in the preceding chapters of this report. In a first section, the applicable regulation for each entity type is presented, according to the classification of entities specified in chapters 2 and 3 of this report. The second section provides an overview of existing and ongoing regulation for the major activity types (SFTs, derivatives activities etc.). The third and last section deals with regulation to mitigate spill-over risks from interconnectedness of shadow banks and other investment funds with other (financial) institutions.

Table 5.1 on the next pages provides a conceptual framework and a general overview to the reader of all topics and regulations covered. In the columns, the applicable regulation/supervision is shown according to whether the regulation/supervision applies to an entity (securitisation vehicle, investment fund, asset manager ...), an activity (securities financing transactions, derivatives ...) or to potential spill-overs on other financial institutions. In the rows, the different types of regulations (or related sub-areas) are shown.

Table 5.1: Overview of non-bank financial regulation: asset management and shadow banking

<table>
<tr><th rowspan="2">Policy type and scope / Vulnerability or regulation area</th><th colspan="4">Entity-based (not in consolidation perimeter)</th><th>Activity-based</th><th>Spillovers</th></tr>
<tr><th>Asset manager</th><th>Investment funds</th><th>Non-retained securitisation vehicles</th><th>Other shadow banking entities</th><th>- Securities financing transactions
- Derivative transactions
- Securitisation
- Short selling</th><th>Interconnectedness (contractual and non-contractual links)</th></tr>
<tr><td rowspan="4">Asset-management and shadow bank-based financial intermediation
- Licensing
- Consumer protection (prospectus, fiduciary duty, …)</td><td colspan="2">UCITS</td><td rowspan="4"></td><td>FSMA, Ministry of Economic Affairs</td><td>MIFID II / MIFIR</td><td rowspan="4"></td></tr>
<tr><td colspan="2">AIFMD</td><td rowspan="3"></td><td>FSMA</td></tr>
<tr><td></td><td>MMFR</td><td rowspan="2"></td></tr>
<tr><td colspan="2">FSMA</td></tr>
<tr><td rowspan="6">Prudential supervision</td><td colspan="2">UCITS</td><td rowspan="2">Indirect through sectoral supervisory authorities of entities involved in transactions with these vehicles: CRR, Solvency II, UCITS, AIFMD</td><td>FSMA: Capital requirements</td><td>SFTR</td><td>CRD/CRR/Solvency (ECB/NBB)
IORP (FSMA)</td></tr>
<tr><td colspan="2">AIFMD</td><td rowspan="5"></td><td>EMIR</td><td>FICO</td></tr>
<tr><td></td><td>MMFR</td><td rowspan="4"></td><td>EU COM proposal STS</td><td>Shadow banking surveillance</td></tr>
<tr><td colspan="2">FSMA</td><td>SSR</td><td rowspan="3"></td></tr>
<tr><td colspan="2">NBB: Stock-broking firms (CRR)</td><td rowspan="2"></td></tr>
<tr><td>EBA: New prudential regime for investment firms</td><td></td></tr>
</table>

<table>
<tr><th rowspan="2">Policy type and scope
Vulnerability or regulation area</th><th colspan="4">Entity-based (not in consolidation perimeter)</th><th>Activity-based</th><th>Spillovers</th></tr>
<tr><th>Asset manager</th><th>Investment funds</th><th>Non-retained securitisation vehicles</th><th>Other shadow banking entities</th><th>- Securities financing transactions
- Derivative transactions
- Securitisation
- Short selling</th><th>Interconnectedness (contractual and non-contractual links)</th></tr>
<tr><td rowspan="5">Liquidity and maturity mismatch</td><td colspan="2">UCITS /FSMA</td><td>Entities investing in and originating securitisation have to fulfill prudential requirements to ensure that risks inherent to these instruments are appropriately captured.</td><td>CRR: Soft limits on large exposures</td><td>SFTR</td><td>LCR/NSFR</td></tr>
<tr><td colspan="2">AIFMD/FSMA</td><td>CRR: risk weights wrt re-securitisation & credit/liquidity lines</td><td>FSMA: Minimum capital requirements</td><td></td><td>Step-in risk</td></tr>
<tr><td></td><td>MMFR/FSMA</td><td>EU COM proposal STS</td><td></td><td></td><td>Contractual links</td></tr>
<tr><td colspan="2">FSB: Recommendations</td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="2">ESRB: Draft recommendations</td><td></td><td></td><td></td><td></td></tr>
<tr><td rowspan="4">Leverage</td><td colspan="2">AIFMD/FSMA</td><td></td><td>FSMA: Minimum capital requirements</td><td>EMIR (Synthetic leverage used by AM vehicles)</td><td rowspan="3">Leverage provider:

- On-balance: Credit and counterparty risk CRR

- Derivatives: Counterparty risk CRR & EMIR</td></tr>
<tr><td colspan="2">UCITS/FSMA</td><td></td><td></td><td>SFTR</td></tr>
<tr><td colspan="2">FSB: recommendations</td><td></td><td></td><td>FSB: Margins and haircuts</td></tr>
<tr><td colspan="2">ESRB: draft recommendations</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Eligible collateral</td><td colspan="2"></td><td></td><td></td><td>EMIR</td><td></td></tr>
</table>

<table>
<tr><th rowspan="2">Policy type and scope
Vulnerability or regulation area</th><th colspan="6">Entity-based (not in consolidation perimeter)</th><th>Activity-based</th><th>Spillovers</th></tr>
<tr><th colspan="2">Asset manager</th><th colspan="2">Investment funds</th><th>Non-retained securitisation vehicles</th><th>Other shadow banking entities</th><th>- Securities financing transactions
- Derivative transactions
- Securitisation
- Short selling</th><th>Interconnectedness (contractual and non-contractual links)</th></tr>
<tr><td rowspan="6">Information asymmetry
- Transparancy towards investors
- Reporting to the competent authorities</td><td colspan="2"></td><td colspan="2">MMFR/FSMA</td><td>IOSCO and Basel Committee</td><td>FSMA</td><td>MIFID II / MIFIR</td><td rowspan="6"></td></tr>
<tr><td></td><td colspan="3">UCITS/FSMA</td><td>ESMA</td><td rowspan="5"></td><td>EMIR: Derivatives</td></tr>
<tr><td colspan="3">AIFMD/FSMA</td><td></td><td>EU COM proposal STS</td><td>IOSCO, Basel Committee, ESMA, STS: securitisation</td></tr>
<tr><td colspan="2">ESMA: Guidelines for UCITS management</td><td colspan="2"></td><td rowspan="3"></td><td>FSB, SFTR: Securities financing transactions</td></tr>
<tr><td colspan="4">FSB: Recommendations</td><td rowspan="2"></td></tr>
<tr><td colspan="4">ESRB: Draft recommendations</td></tr>
</table>

Notes:

Existing regulation

Regulation in preparation

5.1. Regulation of entities

5.1.1. Asset managers and investment funds

5.1.1.1. Licensing and consumer protection issues

Asset managers and investment funds are subject to extensive licensing and reporting requirements, as explained in detail in annex 2.

As to the Belgian **investment funds**, the regulation differs depending on whether the funds are established as UCITS[68] or AIFs[69], and for AIFs whether these are offered to the public or not, whether these AIFs are open-ended or closed-ended, and whether these AIFs are established within the boundaries of a specific regulatory regime. Regulation is based on European legislation as well as on Belgian law. Rules are more stringent for funds offered to the public. For instance, Belgian publicly offered investment funds are registered with the FSMA and are under its supervision, they have to respect several stipulations with respect to their organisation, the fit and proper character of the management, publication of a prospectus and key investor information documents (KIID), reporting to the supervisor, the risk spreading and the investment policy. The foreign open-ended investment funds offered publicly to the Belgian investors have to submit either a notification (UCITS) or a registration (AIF) dossier to FSMA and are subject to a substantial part of the regulation applicable to Belgian public open-ended investment funds. In addition, the marketing material of Belgian and foreign publicly offered investment funds is, similar to other financial products offered to the public, subject to strict compliance requirements and an approval procedure by the FSMA.

All **asset managers** governed by Belgian law, either UCITS management companies, external managers of AIFs (AIF managers) and internal managers of AIFs (self-managed AIFs), must obtain an authorisation from the FSMA before beginning their activities. The authorisation covers the managerial functions performed by the manager, namely, portfolio management and risk management, the administration of the investment fund (accounting, portfolio valuation, etc.), marketing and activities relating to assets held by the AIF. Alongside the management of UCITS and/or AIFs, supplementary activities may be carried out by managers that are management companies. The latter are also permitted to provide discretionary and individualised portfolio management services as well as ancillary services, comprising investment advice, safekeeping and administration for units of undertakings for collective investment, and the receipt and transmission of orders for financial instruments.[70]

These managers are subject to strict prudential (conditions for authorisation and organisational conditions, fit and proper rules for the directors, internal control functions, etc.) and financial (minimum own funds, liquidity management policy, etc.) supervisory regimes, pursuant to either the

---

68 Undertakings for collective investment in transferable securities, subject to Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS). For more information, see annex 2 to the report.

69 Alternative investment funds, for which the managers is subject to Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers. For more information, see annex 2 to the report.

70 UCITS management companies that do not also hold an authorisation as AIF management companies cannot provide discretionary portfolio management and investment advice as an ancillary service. We also note that management companies are not authorised to provide solely discretionary portfolio management services and ancillary services, or ancillary services alone without also providing discretionary portfolio management services.

UCITS Directive or the AIFM Directive, which are comparable to those imposed on credit institutions by the Law of 25 April 2014 on the status and the supervision of credit institutions.[71]

In 2017, the FSB issued recommendations to address structural vulnerabilities in the asset management industry, more specifically that authorities should have guidance for asset managers that are large, complex, and/or provide critical services on robust risk management frameworks and robust risk management frameworks and practices, especially with regards to business continuity plans and transition plans, for example, to enable orderly transfer of their clients' accounts and investment mandates in stressed conditions.

Note that EBA currently develops a new specific regime for investment firms for which current prudential requirements equivalent to the ones for credit institutions seem less appropriate, at least for non-systemic investment funds.

5.1.1.2. Main risks

The risk metrics calculated for the Belgian MMFs and non-MMF investment funds, revealed that a liquidity or maturity mismatch is the most important risk, even though several elements have been presented to nuance its magnitude.[72] 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 and are not necessarily covered by liquid assets. The risk is lower for MMFs than for non-MMF investment funds, as the former must be liquid per definition and only funds of the variable net asset value type (VNAVs) are allowed in Belgium. As MMFs have to respect restrictions with respect to the maturity of their assets, maturity transformation risk is low for this type of funds. The risk metrics revealed 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. Several regulatory requirements mitigate the risk of liquidity and maturity mismatch and prevent the use of leverage.

Liquidity/maturity mismatch

Liquidity and maturity mismatch is dealt with in the UCITS directive that includes detailed eligible asset rules, appropriate liquidity management processes, diversification limits, the possibility of temporary suspension of redemptions and sets valuation processes in place to price assets at fair value. AIFMD requires appropriate and effective liquidity management systems and procedures and valuations processes in place to price assets at fair value as well. Moreover, it provides the possibility of suspension of redemptions for all fund types. Note that the AIFMD is currently under review. The final text for a regulation on MMFs (MMFR) is expected to be published soon. In November 2016, the EC announced an agreement on the core elements: (1) ban on sponsor-support of MMFs (no liquidity lines from banking sector), (2) introduction of a new type 'Low-Volatility NAV MMF' which may continue to use a stable NAV in more limited conditions, (3) daily/weekly liquidity regulation and introduction of redemption gates/fees and (4) rules for portfolio diversification and daily valuation requirements.

---

71 Only managers of small-scale AIFs within the meaning of the AIFM Directive may limit themselves to applying for registration with the FSMA. The latter is a light regime based on which these managers are subject exclusively to reporting obligations vis-à-vis the FSMA. However, if these managers offer the AIFs they manage to the public, they are required to obtain an authorisation from the FSMA and are subject to the same prudential regime as traditional AIF managers.

72 The ESRB Occasional Paper No 10 "Assessing shadow banking – non-bank financial intermediation in Europe" (July 2016) showed that there is generally a trade-off between liquidity and maturity mismatch in bond funds.

Several FSB recommendations issued in 2017 to address structural vulnerabilities in asset management relate to liquidity/maturity mismatches. The FSB recommends authorities to (1) have requirements/guidance stating that funds' assets and investment strategies should be consistent with the terms and conditions governing fund unit redemptions both at fund inception and on an ongoing basis (for new and existing funds), taking into account the expected liquidity of the assets and investor behaviour during normal and stressed market conditions, (2) widen the availability of liquidity risk management tools to open-ended funds and reduce barriers to use them, (3) reduce first-mover advantage by new tools as swing pricing etc., (4) provide guidance on stress testing at the level of individual open-ended funds to support liquidity risk management to mitigate financial stability risk, (5) promote (through regulatory requirements or guidance) clear decision-making processes for open-ended funds' use of exceptional liquidity risk management tools, and the processes should be made transparent to investors and the relevant authorities. IOSCO should review the existing guidance and bring it in line with all recommendations mentioned. Through its participation in IOSCO and its dedicated subcommittee, FSMA is feeding directly into and complementing the FSB work and undertaking initial internal work with a view on responding to the FSB recommendations addressed to IOSCO.

In this context, also the ESRB is considering a wide range of policy options to address potential systemic risks related to liquidity mismatch, building on already existing micro-prudential regulation in UCITS and AIFMD, as well as trying to identify a reasonable approach for relevant authorities in developing their capacity to conduct stress tests at a macro level. The Expert Group on Investment Fund liquidity and leverage (EGIF) seeks to align with the work conducted at international level by FSB and IOSCO.

With regard to the reporting obligations a similar requirement will be already implemented for Belgian UCITS by way of a new FSMA regulation (see section 4.1.2).

Based on the international law mentioned above, and on specific Belgian law, several rules and tools to mitigate liquidity mismatch are currently available in Belgium. For all types of funds, it is possible to suspend redemptions, and they are obliged to put in place appropriate liquidity management processes. The public funds should only invest in liquid transferable securities or in other liquid financial assets. Their liquidity risk management processes must ensure that the fund is able to comply in all foreseeable circumstances, including in stressed conditions, with its obligation to redeem units at request. The FSMA is currently drafting a proposal on legislative changes that make additional liquidity management tools available: swing pricing, anti-dilution levies and redemption gates.

Swing pricing refers to a process for adjusting a fund's net asset value (NAV) to effectively pass on transaction costs stemming from net capital activity (i.e., flows into or out of the fund) to the investors associated with that activity during the life of a fund, excluding ramp-up period or termination[73]. In a liquidity-challenged environment, quoted bid/ask spreads and overall trading cost can widen and may not be representative of the executed prices that can be achieved in the market. In such circumstances, swing pricing can be a useful mechanism to contribute to protect the interests of existing investors, specifically protecting the value of investors' capital by protecting them from the dilution of their holdings.

[73] When an investment fund is initially building (ramp-up period) or liquidating (termination) its portfolio, the transactions costs are rightly supported by all investors. No adjustment of the fund's NAV is necessary.

It is also a useful mechanism to protect remaining investors when:

- one or more large investors choose to redeem in "normal times" where their actions would have material market impact costs;
- more active trading takes place; and/or
- funds hold illiquid assets.

Swing pricing has two forms. In the first form (the "full" swing pricing), the NAV of a fund adjusts up or down every calculation day, based on the direction of net capital activity, regardless of the size of investor dealing. The second method (the "partial" swing pricing) is only invoked when the net capital activity is greater than a pre-determined threshold (often referred to as the "swing threshold"), which is usually set in terms of a percentage or basis point impact.

The anti-dilution levy is a single charge to the funds' NAV price. It is applied by fund management companies simply to protect existing investors from bearing the costs of buying or selling the underlying investments as a result of large inflows into or outflows from a fund. It is not used for creating a profit or avoiding a loss. Compared to the swing pricing mechanism, it does not involve any adjustment to the value of the portfolio (NAV) and allows a more transparent communication towards the investors. It is also more flexible and can be adapted to the specific stressed situation whereas the swing pricing mechanism is usually defined *a priori* during the design phase of the fund.

Redemption gates are partial restrictions to investors' ability to redeem their capital, generally on a pro-rata basis. For example, a five per cent redemption gate on a fund would mean that if orders at a given cut-off exceed five per cent of the net assets of the fund, then the orders, based on the decision of the responsible entity, are only partially executed, with the non-executed part either being cancelled or automatically carried over to the next valuation/dealing day. Redemption gates are an accepted common market practice in some jurisdictions and can be used in normal market conditions and should not automatically be considered as a crisis-type policy option.

The possibility to use liquidity management tools already exists for non-public funds, as well as requirements with respect to their investment strategy, stating that the liquidity profile and redemption policy must be consistent.

Specific requirements apply to MMFs. They should (1) ensure that the portfolio has a weighted average maturity (WAM) of no more than 60 days and a weighted average life (WAL) of no more than 120 days, (2) limit investment in securities to those with a residual maturity not exceeding the legal redemption date of less than or equal to 397 days, and (3) ensure the money market instruments it invests in are of high quality. In making its determination, a management company must take into account a range of factors including, but not limited to: (1) the credit quality of the instrument, (2) the nature of the asset class represented by the instrument, (3) for structured financial instruments, the operational and counterparty risk should be inherent within the structured financial transaction and (4) the liquidity profile.

Leverage risk

With respect to leverage risk, the UCITS directive limits temporary borrowing up to 10% of assets, it limits the use of derivatives and of securities financing transactions (SFT) to 100% of NAV and obliges funds to use the commitment approach or value at risk (VaR) approach to calculate its global exposure. The AIFMD foresees the option to impose leverage limits and other restrictions on use of leverage (article 25).

Three FSB recommendations issued in 2017 to address structural vulnerabilities in asset management, relate to leverage risk: (1) IOSCO should 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; (2) Authorities should collect data on leverage in funds, monitor the use of leverage by funds not subject to leverage limits or which may pose significant leverage-related risks to the financial system, and take action when appropriate; (3) IOSCO should collect national/regional data across its members. In this context, potential ESRB recommendations are also being discussed within the EGIF.

Based on the international law mentioned above, and on specific Belgian law, several tools to mitigate leverage risk are currently available in Belgium. Public open-ended investment funds can borrow up to 10% of assets provided that this borrowing takes place on a temporary basis. The global exposure related to derivatives and SFTs is limited to 100% of NAV. A public open-ended investment fund using both external borrowing and derivatives can thus leverage up to 2.1 times its NAV.[74] Short selling is prohibited for public funds.

5.1.2. Non-retained securitisations

The risk metrics for securitisation vehicles can only be calculated for the total of Belgian securitisation vehicles and it is not possible to provide risk metrics for non-retained securitisation only (only 15% of the total). The judgmental approach revealed that leverage is the most important risk. Their position with respect to liquidity transformation is rather comfortable and maturities on both sides of the balance sheet are relatively balanced. If there are limited maturity or liquidity mismatches, one could argue that 'leverage' should in principle be less of a problem given that there will never be a need to liquidate the assets. The leverage risk is also mitigated by the fact that the risk is generally transferred to the holders of the debt securities. In that sense, these instruments are more equity-like.

Supervision is indirect through the sectoral prudential regulation of entities involved in transactions with these vehicles and included in CRD/CRR for banks, Solvency II for insurance companies and UCITS/ AIFMD for investment funds and asset managers. More details are provided in the section 'Regulation of activities'. Note that the EC published in September 2015 a regulatory proposal for a horizontal securitisation framework that would supplant and unify all sector-specific regulation.

5.1.3. Other shadow banking entities

The other shadow banking entities consist of leasing and factoring companies, lenders in consumer and mortgage credit and other entities engaged in loan provisioning that is dependent on short-term funding. These entities are included in the narrow shadow banking measure under economic function 2 (see chapter 3 for more details).

5.1.3.1. Licensing and consumer protection issues

The law of 19 April 2014 inserting Book VII into the Code of Economic Law (CEL) regulates inter alia

74 An exception to this rule are the public open-ended investment funds that engage in complex investment strategies, or those investment funds for which the commitment approach does not adequately capture the market risk of their portfolio, and which may use the VaR approach to measure their global exposure. VaR is not a measure of leverage, rather it is a measure of maximum potential loss. Due to the different calculation methods of global exposure for these funds, leverage can exceed 2.1 times the NAV of the fund as measured by the commitment approach. However, these investment funds are subject to similar limits based on their VaR calculation, as outlined in CESR's Guidelines on Risk Measurement and the Calculation of Global Exposure and Counterparty Risk for UCITS (CESR/10-788).

the status of lender in mortgage and consumer credit.[75] The provisions of Book VII of the CEL on credit matters repeal the law of 12 June 1991 on consumer credit and the law of 4 August 1992 on mortgage credit.

Supervision of compliance with these provisions is carried out in part by the FSMA and in part by the FPS Economy. The legislator has entrusted the FSMA with the task of ensuring compliance with the provisions on access to the business of lending. The relevant provisions are laid down in Chapter 4 of Title 4 of Book VII of the CEL, which entered into force on 1 July 2015. The FSMA is responsible for examining lenders' applications for authorisation, while the FPS Economy is in charge of ensuring compliance with the provisions of Book VII on credit, in particular those provisions that relate to advertising, training and credit agreements performance, withdrawals from credit agreements, data records with the Central Individual Credit Register, etc. The FPS Economy also examines whether model contracts comply with all the provisions of Books VI and VII of the CEL and approves all subsequent changes to contracts.

A lender is defined as a person who grants credit as part of business or professional activities. It should be noted that only lenders granting loans to consumers who have their usual residence in Belgium need to be authorised under Book VII of the CEL. Thus leasing will be subject to this status only to the extent that it is aimed at consumers that have their residence in Belgium. It should also be noted that factoring is not subject to this regulation.

A detailed description of the regulation can be found in annex 3.

5.1.3.2. Main risks

The risk metrics calculated for the Belgian finance companies and the judgmental approach, revealed that their position with respect to liquidity transformation is rather comfortable and maturities on both sides of the balance sheet are relatively balanced. These companies do entail leverage, but it is relatively contained compared to banking sector averages.

Two types of policy tools are available in Belgium:

1) Capital requirements:
    a. For lenders in consumer credit: a minimum capital requirement of € 250,000 per category of credit agreement (a) if the credit agreement constitutes a credit facility or is non-defined (b) the minimum capital requirement is € 2,500,000. For entities under (a) and (b) existing at the moment of requesting a license as lender: a minimum capital requirement of € 175,000 per category of credit agreement for (a) and € 2,000,000 for (b).
    b. For lenders offering credit relating to immovable property: a minimum capital requirement of € 2,500,000.
2) Limits on large exposures of banks to these companies: to calculate the exposure value, Art. 390 of CRR provides that underlying exposure (which may be linked to shadow banking) has to be taken into account. In 2014 the Commission issued Regulatory Technical Standards (RTS) aimed at defining the conditions and methodologies used to determine the overall exposure to a client or group of connected clients resulting from a transaction with underlying assets and the risks inherent in the structure.

---

75 Law of 19 April 2014 inserting Book VII "Payment and credit services" into the Code of Economic Law, inserting the definitions for Book VII and the penalties for violations of Book VII into Books I and XV of the Code of Economic Law, and introducing various other provisions.

5.2. Regulation of activities

Shadow banking does not only relate to entities involved in non-bank credit intermediation that poses bank-like risks to the financial system (this is the narrow measure explained in chapter 3 of this report), it also relates to several types of activities, executed by shadow banking entities as well as banks, insurance companies and other financial institutions that are not considered as shadow banks, that could entail risks to financial stability. These activities consist of securities financing transactions (SFTs), the use of derivatives, securitisation and short selling. Besides the risks inherent to these transactions, they also increase interconnectedness among financial institutions. Existing regulation mostly deals with transparency obligations and risk management.

5.2.1. Securities financing transactions

SFTs, including lending and repurchase (repo) agreements, are core funding techniques for financial institutions. They support price discovery and secondary market liquidity for a wide variety of securities. However, SFTs can also facilitate credit growth and maturity and liquidity transformation. This can pose financial stability risks through the build-up of leverage and maturity transformation outside the reach of prudential liquidity and capital regulation.

To address such financial stability risks associated with SFTs, the FSB developed policy recommendations for the enhanced transparency and regulation of securities financing as well as the improvement of market structures. In addition, the FSB issued a regulatory framework for the application of haircuts on non-centrally cleared SFTs, which included qualitative standards for methodologies used by market participants to calculate haircuts and a framework of numerical haircut floors in cases where banks provide financing to non-banks against collateral other than government securities (i.e. bank-to-non-bank transactions).The FSB extended the scope in a second stage to also cover SFTs between non-banks (i.e. non-bank-to-non-bank transactions). In its Opinion of October 2016, the ESRB calls for the implementation of the FSB minimum floor regime in the EU and for a macroprudential approach towards the setting of margin/haircut levels. The EC shall, by October 2017, submit a report including any appropriate proposals to the European Parliament and the Council on progress in international efforts to mitigate risks associated with SFTs, including the FSB recommendations for haircuts, and on the appropriateness of those recommendations for Union markets.

The FSB also developed standards and processes for the collection and aggregation of global securities financing data that are relevant for financial stability monitoring and policy responses. Such standards and processes would allow the FSB to collect from national/regional authorities aggregated data on repos, securities lending and margin lending, based on consistent definitions and minimal double-counting at the global level. In light of the FSB recommendations, the EC adopted a Regulation on transparency of SFTs and collateral re-use (SFTR). The regulation is addressed to all users of SFTs, including shadow banking entities, and requires SFTs to be reported to a trade repository. Depending on the category of the reporting entity, the reporting will start between mid-2018 and mid-2019. This will allow supervisory and regulatory authorities to monitor the exposures, market practices and risks associated with SFTs. Analytical work has already started at ECB/ESRB level in this context. Moreover, the regulation will improve the transparency of the re-use of financial instruments by setting minimum conditions to be met by the parties involved. This will ensure that clients or counterparties have to give their consent before re-use can take place and that they make that decision based on adequate information of the risks that the re-use might entail.

5.2.2. Derivative transactions

Derivative transactions are essential to cover financial institutions against several types of risks. However, they can result in large losses because of the use of leverage. They are regulated in the European Market Infrastructures Regulation (EMIR). EMIR is addressed to all users of derivatives, including shadow banking entities. It requires reporting of all derivative transactions to trade repositories, as well as the central clearing of derivatives. All counterparties shall ensure that appropriate procedures are in place to measure, monitor and mitigate operational risk and counterparty credit risk. The rules with respect to collateral requirements with regard to the exchange of initial and variation margins between counterparties are specified in a delegated regulation. Public investment funds' exposures to derivatives are limited to 100% of their NAV.

EMIR is currently under review. However, at this stage no fundamental changes to the nature of EMIR's core requirements will be made, the review will be limited to the improvement of some aspects. A further review might be undertaken to cover the use of margins and haircuts as macroprudential tools with a view on limiting procyclicality.

5.2.3. Securitisation

Securitisation, when well-structured, increases the availability of credit to the real economy while diversifying risks through converting non-tradable financial assets into securities that are traded by a wide range of investors. The structuring of payment rights into tranches and provision of credit enhancements also allow credit risks to be tailored to investor appetites. However, in the run-up to the crisis, misaligned incentives from securitisation weakened lending standards in the credit origination process, while securitisation structures grew increasingly opaque, hiding growing amounts of leverage and maturity mismatches in their funding.

As a reaction to the risk that materialised during the financial crisis, several reforms have been undertaken at BCBS and EU level in the last years to indirectly address the flaws that became apparent in the crisis. As 'quick fixes' to the most blatant flaws of the securitisation framework, the Basel Committee (BCBS) has increased significantly the risk weights applicable to re-securitisations and to credit/liquidity lines to securitisation vehicles in enhancements to the Basel II framework (the so-called "Basel II.5" rules).

In the CRR, which included the Basel II.5 enhancements, the EC also introduced a retention requirement, requiring EU banks and investment firms to only invest in securitisations where the originator retains 5%. The CRR also contains provisions for institutions to assess whether the risk transferred is commensurate with the capital relief achieved through the sale of the tranches.

In addition to the 'quick fixes' embedded in Basel II.5, the complete revision of the capital framework applicable to securitisation was finalised by the BCBS in December 2014. It contained a re-calibration of risk weights (RW) applicable to securitisation holdings by banks, using a hierarchy of different approaches to estimate RWs. The framework will come into force in 2018 and increase the RWs applicable to securitisation holdings compared to the current (pre-crisis) level to take into account the risk that materialised in the financial crisis.

In 2015, the IOSCO and the BCBS embarked on an additional policy project related to securitisation, i.e. the development of criteria for simple, transparent, consistent (STC) securitisations, and the subsequent use of these criteria in the capital framework for securitisation to grant a preferential treatment for securitisations satisfying these criteria. The STC framework for 'term securitisations' has been published in June 2016 and amends the 2014 revisions to the framework, coming into force equally in 2018. Analogous work on STC criteria for short-term securitisation (ABCP conduits) is currently in progress. The European Commission published in September 2015 a regulatory proposal for a horizontal securitisation framework that would supplant and unify all sector-specific regulation (i.e. for bank, insurance companies.). It also contained a proposal for European framework for simple, transparent and standardised (STS) securitisation, moving thereby ahead of Basel. The regulatory proposal is soon to be finalised. ESMA published on 21 May 2015 its responses to the European Commission public consultation on STC securitisations. ESMA emphasised in particular that due diligence requirements must play a central role under the securitisation framework while at the same time underlining that the full potential, and implications, of the ongoing reforms in the European Union have not yet materialised.

Liquidity regulation also has enshrined securitisation as Level 2B asset eligible for the banks' liquid asset buffer.

5.2.4. Short-selling

The European Regulation on Short Selling (SSR) increases the transparency of short positions held by investors in certain EU securities by imposing a disclosure/notification regime and by restricting transactions. In Belgium, short-selling is forbidden for public investment funds.

5.3. Regulation to mitigate spill-over risks (interconnectedness)

An assessment of financial interconnectedness between shadow banking entities on the one hand, and banks, insurance companies, pension funds, households and non-financial companies, on the other hand, has been presented in chapter 4 of this report. It shows that risks can spill over through direct and indirect linkages. For example, direct linkages are created when non-bank financial entities are directly owned by banks or benefit form explicit (contractual) or implicit (non-contractual) bank support. Such amplification of risks can have consequences for financial stability. Data presented in chapter 3 revealed that an important part of the linkages is located within conglomerates or consolidated entities and should not be treated as shadow banking. Section 1 will give an overview of conglomerate supervision applicable to these linkages. The remaining part is to be considered as shadow banking, and regulated according to the framework presented in section 2.

5.3.1. Conglomerates supervision

Financial conglomerates are defined as groups operating in different business activities combining banking, securities and insurance activities. The specific risks they are exposed to have been tackled by EU legislation (FICOD and delegated acts), which complements sectoral regulations.

The scope of the supplementary conglomerate supervision exercised on groups identified as financial conglomerates includes all undertakings, whether regulated or unregulated, consolidated or not, that form part of the group. For the purpose of supplementary supervision, a group is indeed defined as a set of undertakings formed by a parent undertaking, its subsidiaries, the undertaking in which the parent undertaking or its subsidiaries have a direct or indirect participation and the undertakings forming a consortium and undertakings controlled by the latter undertakings or in which the latter undertakings hold a participation.

Supplementary supervision relates to requirements to mitigate the risk of contagion within the group, the existence of conflicts of interest, circumvention of sectoral legislation, as well as the level or scale of risk concentration and intragroup-transactions, which are typical financial conglomerate risks. The requirements include transparency, appropriate risk management and internal control procedures, and reporting.

It will be noted that interconnectedness of groups identified as financial conglomerates with shadow banking entities is not as such addressed by supplementary supervision. Nevertheless, the wider scope that is covered compared to consolidated supervision can be an important milestone to consider risks arising from shadow banking.

5.3.2. Linkages with shadow banks

5.3.2.1. Links with banks

The BCBS finalised two policy measures in this context. The first relates to risk-sensitive capital requirements for banks' investments in the equity of funds. This requirement establishes a more consistent and risk-sensitive approach for computing regulatory capital requirements for banks' investments in the equity of funds that are not held for trading purposes, by appropriately reflecting both the risk of the fund's underlying investments and its leverage. EU Member States are implementing the new requirements through the proposed update of the CRR. The second measure seeks to protect the banking sector from the risk of the default of single private sector counterparties, including shadow banking entities by establishing a supervisory framework for measuring and controlling banks' large exposures. To achieve this, the definition of a large exposure is strengthened to limit carve outs and exemptions (which shadow banks may have previously been able to take advantage of), and to more clearly and consistently capture exposures to funds, securitisation structures and other vehicles. Banks will also be subject to a hard limit on large exposures of 25% of Tier 1 capital. BCBS members are currently in the process of implementing the framework fully by 1 January 2019. In EU Member States, similar large exposure requirements are already in effect for several years.

The EBA has issued guidelines concerning limits on institutions' (credit institutions and investment firms) large exposures to shadow banking entities and the results of the accompanying comprehensive data gathering exercise have been published in 2016. The guidelines come into force on 1st January 2017. Section 3.1.1 explained what entities are considered as shadow banks according to the EBA methodology. The guideline lays down requirements for institutions to set limits, as part of their internal processes, on their individual exposures and aggregate exposure to shadow banking entities to minimise the macro and micro-prudential risks. They essentially consist of qualitative limits, while quantitative limits are only used as a fall-back approach. The SSM decided to comply with these guidelines for significant institutions, the NBB has published a circular in order to apply the guidelines for less significant institutions. In the meantime, EBA asked for a mandate to report to the Commission on the effectiveness of the guidelines and propose, if appropriate, to transform certain aspects of the guidelines into a regulation. This assessment would be conducted only after an appropriate observation period.

In addition to this specific regulation addressing the links between banks and the shadow banking system, it is also important to note that such links are captured by other prudential regulations that are covering banks' exposures to different kinds of risks. Relevant prudential policy areas that cover risks stemming from the links to the shadow banking system or the asset management industry are liquidity, the credit risk framework and the market risk framework.

The existing regulation on credit, liquidity and market risk should cover banks' on- and off-balance sheet exposures to shadow banks just as any other exposure to third parties; while these cover contractual links, there may be a gap for non-contractual links between banks and non-bank entities.

The BCBS is in that context continuing its review of the scope of consolidation for prudential regulatory purposes with a view to developing guidance to ensure all banking activities, including banks' on- and off-balance sheet interactions with the shadow banking system, are appropriately captured in prudential regimes. In particular, it is assessing the risk of banks stepping in to support shadow banking entities (i.e. step-in risk) and is considering possible ways to capture such risk in the regulatory perimeter. It issued proposals for public consultation around the end of 2015 in this regard and is in the process of finalising the work on step-in risks.

5.3.2.2. Links with insurance companies

As shown in section 4.3.3, the Solvency II supervisory data capture well the exposure of the Belgian insurance sector to other financial intermediaries and potential shadow bank entities. The regulatory risks are thus captured as well in the existing Solvency II framework. Given the important role of the unit-linked contracts — also highlighted in section 4.3.3 —, it is not excluded that some non-contractual links and associated risks may also be present. These risks are related to the potential additional non-contractual commitments, as for example explained in the Basel Committee approach to potential « step-in » risks as regards banks' exposures to sponsored unconsolidated entities. An important mitigant for this interconnectedness risk within financial groups or conglomerates is strong risk management as well as adequate supervision at the level of the financial group or conglomerate, which should take into account these potential spill-over effects. The competent supervisor should ensure that « step-in » risks are covered, assessed and integrated in the risk management of financial groups and conglomerates.

CHAPTER VI: Key findings, policy conclusions and recommendations

The increasing attention that national and international regulators and supervisors are devoting to developments in the so-called shadow banking sector and in the sector of asset managed is closely related to the evolution towards a more market-based financial system, where more financial intermediation occurs outside the banking sector. The current report is a part of that process and the joint work undertaken by the NBB and FSMA to produce this report has shown that it is a domain where a fruitful co-operation and exchange of information between the two Belgian supervisory authorities can be used to document developments in parts of the financial system that are not always well understood. In this connection, one of the key findings is that aggregate numbers on the size of the Belgian shadow bank sector or the asset management industry should not be used as a measure of underlying risks, but 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. This report also reminds that the shadow bank and asset management sectors are far from being "unregulated" parts of the financial system, so that a careful assessment should be made about the need for additional policy measures.

Market-based financing provides a valuable alternative to bank funding and helps to support real economic activity. The Belgian *Starter Funds* and European *Capital Market Union* initiatives fall within the scope of this support. It is a welcome diversification of credit supply from the banking system, and provides healthy competition for banks. However, if market-based financing is involved in bank-like activities such as maturity or liquidity transformation and facilitating or creating leverage, it can become a financial stability risk and a consumer protection issue, directly or through its interconnectedness with other sectors.

Asset management refers to the segment of the financial industry that is involved in the management of financial assets on behalf of investors, either through the collective management of an investment fund, in which many investors may have a stake, or through the discretionary management of an individual investor's portfolio. While the importance of the sector cannot be questioned, the size of the asset management sector in Belgium depends on the yardstick used to measure it. At the core are the public Belgian investment funds (127 € billion); the amount of financial assets managed by Belgian asset managers is two times bigger (258 € billion). If the yardstick used is the assets generating fees and commission income for Belgian banks the maximum amount reached is 531 € billion, a figure that also includes the foreign funds distributed to Belgian residents by these banks. Most of these assets are wrapped in authorised or registered investment funds, some in life-insurance policies, other in Belgian institutions for occupational pensions and finally some are simply clients' portfolios managed on a discretionary basis by the banks themselves.

Shadow banking refers to credit intermediation that involves entities and activities fully or partially outside the regular banking system. The two key aspects of this definition are the link with credit and the existence of an intermediary. Within the framework defined by the FSB views diverge as to what extent investment funds should be considered part of the shadow banking sector. Under the European Bank Authority (EBA) framework only money market funds (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 some hedge funds but all investment funds with the exception of equity funds. Under the EBA framework the Belgian asset management entities (2.4 € billion) represented 12% of the shadow banking sector (19.4 € billion) at the end of 2016, where it was close to 85% of the shadow banking sector under the FSB framework (111 € billion against a total size of 128 € billion respectively).

Whatever the framework that is used to define the shadow banking and the asset management sectors, both sectors overlap to some extent. Both sectors also present, to varying degrees, asset and/or liability links with other sectors of the economy, be they households, non-financial corporations, banks, insurance companies or pension funds. This interconnectedness is not new, however, and the mapping of these links in this report has helped to demystify to a large extent the aggregate interlinkages that are shown in the whom-to-whom financial exposures of the financial account statistics. For the households and the non-financial corporations, the links with shadow bank entities highlighted in this connection are mainly the expected ones (investments of households in investment funds; leasing, factoring and other forms of non-bank financing in the case of the non-financial corporations). As expected, the interconnectedness with shadow banks and asset management activities is stronger for the banking and the insurance sector, especially in case of « intra-conglomerate » entities. While some potential microprudential attention points have been identified and transmitted to the microprudential supervisor, no Belgian-specific issues were revealed at sector level or of systemic relevance, on top of those already being addressed at the European and international level. This being said, this interconnectedness with the banking and other sectors of the economy will necessitate further monitoring within the current and future regulatory context.

The specific concerns with regard to investor protection are generally mitigated by the fact that the regulation that applies to shadow banking and asset management entities is largely inspired with investor protection in mind. For instance, transparency rules, risk limits and organisational requirements for public investment funds and asset managers are aimed at protecting investors.

This report on asset management and shadow banking proposes the following general and specific policy recommendations in order to enhance the risk monitoring of asset management, shadow banking and eventually of the Belgian financial sector as a whole.

6.1. General policy recommendations

6.1.1. Close data gaps and enhance information sharing

International bodies such as the FSB and the ESRB 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 and the NBB are currently reviewing the existing reporting requirements to improve the data availability and granularity and to increase data consistency in Belgium and in line with European developments. The enhanced reporting of shadow banking entities, shadow banking activities and their interconnectedness with banks will strengthen the risk monitoring of the Belgian financial sector as a whole.

Where relevant, and both at the macro and micro level, the NBB and the FSMA will enhance data sharing across both institutions, as well as their cooperation efforts in order to improve the quality and to extend the scope of the monitoring and supervision of the Belgian financial sector.

6.1.2. Monitor periodically the Belgian shadow banking sector

As statistics on the size and composition of the Belgian shadow banking sector and its interconnectedness with the Belgian financial sector are not readily available, the NBB and the FSMA will annually update the key statistics presented in this report. The annual monitoring of shadow banking should:

- take into account the different frameworks at an national or international level with regard to the delineation of shadow banking entities or activities;
- enhance the data quality for all entities and activities falling under the shadow banking scope;
- include new available data;
- enhance the granularity of existing data;
- enable the detection of emerging financial stability risks and investor protection issues.

A joint NBB/FSMA monitoring report shall be made available to all interested parties.

6.1.3. Monitor shadow banking in an international context

In view of the cross-border nature of shadow banking entities and activities, these should as much as possible be addressed at an international level. Belgian shadow banking entities are interconnected with financial institutions and the real economy across the borders, as well as the other way around. This strong international dimension has three consequences:
- the authorities should continue 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). Where relevant, the NBB and the FSMA will continue to foster cooperation with each other within this context;
- in future reviews of gaps and potential enhancements to the existing monitoring and regulatory framework of shadow banking entities, the authorities should take into account the size and nature of these shadow banking entities, as well as the existing monitoring and regulation of the shadow banking, relative to that of other EU Member States;
- when developing and implementing regulations and policies related to shadow banking, the authorities should avoid to go beyond the requirements at the international/supranational level as far as new requirements impose additional costs or burdens upon the Belgian financial sector without clearly reducing risks.

6.2. Specific policy recommendations

6.2.1. Mitigate the concerns for liquidity risk for Belgian investment funds

The risk analysis for the Belgian shadow banking sector (chapter 4) and the stress testing exercise for bond funds (box 4.) revealed that 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 the FSMA will continue its efforts to promote an effective liquidity risk management process and make the following additional liquidity management tools available for all Belgian investment funds:

2. swing pricing;
3. anti-dilution levies; and
4. redemption gates.

A draft of legislation will soon be submitted to the Ministry of Finance.

6.2.2. Mitigate the concerns related to interconnectedness

The analyses on the contractual and non-contractual links between shadow banks and asset management vehicles on the one side and other sectors of the Belgian economy (banks, insurance companies and pension funds, households and non-financial corporations) on the other side have shown a high degree of interconnectedness in the case of links between entities belonging to the same financial group. While most of these links are of a contractual nature and are treated as any other link with a third party in the risk management of the entities involved and in the prudential frameworks set by regulators, the presence of high interconnectedness may also create potential additional non-contractual commitments — as for example explained in the Basel Committee approach to potential « step-in » risks as regards banks' exposures to sponsored unconsolidated entities. An important mitigant for this interconnectedness risk within financial groups or conglomerates is strong risk management as well as adequate supervision at the level of the financial group or conglomerate, which should take into account these potential spill-over effects. The competent supervisor should ensure that « step-in » risks are covered, assessed and integrated in the risk management of financial groups and conglomerates.

Annex 1: Literature review of the theoretical framework
This literature overview has been written under the sole responsibility of the NBB

This note provides a review of the literature on shadow banking; its main drivers (section 2), potential risks of its activities, social benefits and costs (section 3). Section 4 focuses on asset management activities, which represent the main type of shadow banking activities in Belgium – even though not all asset management activities fall within the shadow banking area.

1. Heterogeneity within shadow banking

Shadow banking is a very broad, and fuzzy, concept. Many definitions exist, including that of the FSB: credit intermediation that involves entities and activities fully or partially outside the regular banking system. This definition has two key aspects. The first is the link with credit, and the second involves the existence of an intermediary.

According to the FSB definition of shadow banks, credit granted directly through bond markets does not count as a shadow banking activity, although an asset management company that holds bonds on its balance sheet would qualify as a shadow bank.[76] Within the framework defined by the FSB views diverge as to what extent investment funds should be considered part of the shadow banking sector. According to the European Bank Authority (EBA) definition of shadow banks, only money market funds (MMFs) and some alternative investment funds (AIFs) are considered to fall within the scope of the definition of shadow banking.

In discussing the activities that constitute shadow banking, some authors emphasise the fact that shadow banking activities do not benefit from access to the public safety net, which makes these activities more vulnerable to runs (see, for example, Adrian et al, 2013). Another feature of shadow banking, which is emphasised by the UK Financial Conduct Authority (FCA, 2016), is that the credit intermediation is carried out and priced in markets for money and risk. Indeed, the term "shadow banking" moreover covers a highly diverse range of activities and entities, from securitisation to hedge funds or crowdfunding. The FCA argues that this is the critical element that sets shadow banking apart from traditional banking. The FCA focuses its analysis on what it calls market-based finance, which it describes as "money market funding of capital market lending".[77]

The term "shadow banking" covers a highly diverse range of activities and entities. An idea of the heterogeneity of the activities that have been indicated by different sources as falling in the category of shadow banking is given by the following examples: money market funds (MMFs), OFIs, Broker/dealers, real estate investment trusts (REITs), Securitisation SPVs, Special Investment vehicles (SIVs), asset-backed commercial paper (ABCP) vehicles, hedge funds, finance companies, microcredit institutions, derivative product companies, repos and securities lending.

It should be clear from this highly diverse list that any assessment of costs and benefits of shadow banking activities must take both the activity and the context into account. Moreover, as the IMF (2014) notes, similar types of intermediaries and activities can carry different types of risks across countries and over time. This means that the net benefits or costs need to be assessed at a granular level, taking into account the type of intermediary, the driver of growth of that intermediary/activity, and the nature of the risks associated with the intermediary's activities or balance sheet.

---

[76] The FSB considers investment funds as shadow banks if the funds display "features than make them susceptible to runs".
[77] The FCA makes reference to a definition proposed in Mehrling (2010).

Shadow banking can thus be highly beneficial or give rise to potentially significant systemic risk, depending upon the particular combination of the above elements. This helps to explain why there may be no inconsistency between, on the one hand, the concern with the potential systemic risks posed by shadow banks within the EU and on the other hand, a belief in the benefits of EU Capital Markets Union, which would derive at least in part from an increase in certain non-bank sources of finance for SMEs.

The remainder of the note is structured as follows. Section 2 describes the potential drivers of the level of shadow banking activities. Section 3 identifies potential risks associated with shadow banking activities, as well as the potential social benefits and costs, the latter of which arise from the materialisation of the risks. Finally, whereas the discussion of Section 3 covers the broad range of shadow banking activities, Section 4 conducts a similar analysis focused only on shadow bank asset management activities, which represent the main type of shadow banking activities in Belgium.

2. Drivers of shadow banking activities

As suggested above, the drivers of shadow banking activities and entities vary across countries, time, and type of activity. Understanding the particular drivers of a shadow banking activity can help to assess the likely net costs or benefits of that activity.

The term shadow banking was coined by McCulley (2007), which made reference to the structured finance apparatus that had sprung up prior to the financial crisis, or in McCulley's words, "the whole alphabet soup of levered up non-bank investment conduits, vehicles, and structures". While securitisation and structured finance-related activities do not represent the entire panoply of shadow banking, most of the academic literature devoted to shadow banking focuses on this segment of activities.

We consider below the potential drivers of shadow banking activities more broadly defined, and in the following section we discuss the literature relating to the risks associated with shadow banking and the potential costs and benefits of shadow banking activities.

The main categories of drivers for shadow banking activities are the following.

Market responses to regulation: Although the term shadow banking was only invented in 2007, a much earlier example of shadow banks occurred with the emergence of money market funds in the US in the early 1970s, in reaction to interest rate caps that had been placed on US savings and loan banks. The newly created MMFs represented a market response to financial regulation and to the demand by consumers for safe and liquid savings assets (see discussion of the relevant literature in Duca, 2016). This type of development can be interpreted as a reaction to "financial repression", a term introduced by Shaw and McKinnon in 1973, in reference to financial policies implemented in emerging economies which tended to inhibit growth, and for which an entire academic literature developed.

While deposit rate ceilings and reserve requirements offer examples of "financially repressive" policies that can drive the growth of shadow banking activities, other types of regulations can also foster shadow banking. One example cited by Duca (2016) is the US Commodity Futures Modernization Act of 1999, which made many derivatives contracts other than those for currency and interest rate swaps legally enforceable, and apparently facilitated short-term financing of firms through certain types of shadow banks.

Duca (2016) reports empirical results suggesting that the long-run share of shadow bank funding of short-term credit of US firms indeed increases in response to higher burdens of bank reserve requirements and capital requirements.

Regulatory arbitrage: This driver also represents a form of reaction to regulation; however, it can be useful to distinguish the category of regulatory arbitrage from that of market responses to regulation, since with regulatory arbitrage the shadow banking activity is initiated or facilitated by the institution trying to avoid the regulation or minimise the impact of regulatory requirements.[78] Regulatory arbitrage was a key driver of the structured finance products that lay at the heart of the 2007-2008 financial crisis, as banks took advantage of lower capital requirements for exposures in the trading book than the banking book and for exposures to off-balance sheet special purpose vehicles.[79]

Search for yield: The search for yield in a prolonged period of low interest rates prior to 2007 was argued to be a key driver of the demand for the structured products that banks were designing and housing in special purpose vehicles that needed funding. Highly rated tranches of structured finance products were considered to be safe assets that offered an attractive alternative to government bonds or insured deposits.

A search for yield may also give rise to expansion of money market funds. Empirical research by Kacperczyk and Schnabl (2013) using weekly data indicates that flows of funds into money market funds are responsive to current yields.

With respect to links between the search for yield and aggregate credit, Martinez-Miera and Repullo (2016) analyse a model in which a decrease in interest rates (following an increase in aggregate savings) generates a search for yield, which results in an increase in risky credit, in the size of the shadow banking system, and in higher probability of default (PD) of traditional banks. These factors lead to a financial system that is more vulnerable to negative shocks. The occurrence of a crisis then results in less savings, less risky credit, and a safer financial system. Martinez-Miera and Repullo argue that their model yields a number of "stylised facts" corresponding to the financial crisis, including the link between low interest rates and risk-taking, and the procyclicality of the shadow banking system.

Yet, recent empirical research by Pescatori and Solé (2016) seems to suggest that while higher interest rates in the US do indeed result in a reduction of aggregate credit growth, they may also encourage banks to increase securitisations, in order to help mitigate the impact of increased funding costs due to the higher interest rates. Higher interest rates may thus also encourage funding of credit by the shadow banking sector.

Liquidity conditions: Because most shadow banking activities are funded with short-term finance, liquidity conditions can influence the size of the shadow banking sector. As short-term funding is vulnerable to market or macroeconomic shocks, the pro-cyclicality of the funding can also translate into pro-cyclicality in the level of shadow banking activity. The variability of short-term funding can occur within a single economy or in cross-border capital flows.

---

[78] Acharya et al (2013) find that regulatory arbitrage was responsible for the growth of asset-backed commercial paper conduits prior to the 2007-2008 financial crisis.

[79] For a review of the literature relating to the regulatory arbitrage driver of shadow banking, see Adrian and Ashcraft, 2012.

Perotti (2013) argues that shadow banks create liquid liabilities through the use of collateralised borrowing such as repos. Because repos benefit from "safe harbor" provisions, meaning that the collateral received by the lenders is bankruptcy-remote, the lenders can immediately resell pledged collateral when the borrower enters bankruptcy. This facilitates repo funding of shadow banks. Yet, a jump in market haircuts can lead to a refusal to roll over repos, which is the shadow banking analogy to a traditional bank run and which can lead to asset fire sales (see e.g. Gorton and Metrick, 2012).

Financial deepening: Financial deepening is the process by which the set of markets and financial intermediaries expands and broadens as the financial system develops. The expansion of stock and bond markets represents one form of financial deepening in a developing, bank-oriented financial system. The appearance or growth of insurance companies, pension funds, asset management companies and other financial intermediaries represents another form of financial deepening. Often, shadow banking may expand as the banking system grows, suggesting that the two can be complements.

Financial innovation: Financial innovation is also a driver of shadow banking activity. Technological innovation and falling costs of information transmission can reduce the value added of relationship-based lending by banks and encourage lending by shadow banks (see, for example, Edwards and Mishkin, 1995). Indeed, the growth of Fintech activities reflects these types of developments. Financial innovation also contributed to the emergence of CDOs and other structured finance products prior to the financial crisis.

Interestingly, financial innovation can also create a feedback loop from shadow banking to traditional banking. The innovation of Money Market Deposit Accounts in US banks in 1982, following the drain on the banking system that had occurred as a result of the development of MMFs, helped move funds back into the banking system (Duca, 2016).

3. Sources of risks with shadow banking: assessing potential benefits and costs

This section first highlights the risks associated with the broad range of shadow banking activities, many of which resemble those associated with traditional banking. Then the potential social benefits and costs are identified. While the discussion in this section pertains to the highly diverse range of shadow banking activities, a similar discussion in the following section focuses only on shadow banking asset management activities.

3.1 Risks of shadow banking

Risks associated with shadow banking include the following:

Liquidity and maturity mismatches, which can lead to funding runs. Shadow banks may be more vulnerable to runs than traditional banks if the shadow banks tend to receive mostly short-term, wholesale funding and hold assets that are not highly liquid. Ari et al (2016) model the endogenous expansion of shadow banks and find that entry into the shadow banking sector is profitable as long as traditional banks offer sufficient secondary market demand to prevent liquidations of shadow bank assets from causing a fire sale. The authors show that the shadow banking sector tends to expand too much in periods of stability, creating a source of systemic risk. A negative shock that leads to collapse of shadow banks then leads to increased susceptibility of traditional banks to liquidity runs.

Martin et al (2014) model the possibility of self-fulfilling runs in repo markets and the links between the microstructure of these markets and the susceptibility of the market to runs. The ability of shadow banks, which fund themselves via repos, to continue funding themselves; i.e., to avoid a run, depends both on a liquidity constraint and a constraint on the value of collateral. The likelihood of fire-sale externalities due to nonrenewal of repo funding plays a role in determining the probability of runs in this market.

Leverage: Market-based financial institutions, which typically rely on collateralised funding, have been shown to be subject to leverage cycles, whereby changes in asset values simultaneously determine the amount of funding that can be obtained. Balance sheets can expand in good times and then must contract in bad times (see, for example, Fostel and Geanakoplos, 2014, and Adrian and Shin, 2010). As certain shadow banks tend to rely on collateralised funding, they are particularly subject to leverage cycles, which leads to fragility. As economic conditions deteriorate, the leverage cycle then acts as an amplification mechanism to underlying shocks. Shadow banking activities arising from the drivers of regulatory arbitrage, search for yield, liquidity conditions, and financial innovation might be more likely to generate this type or risk.

Agency problems, which can be exacerbated by the location, exercise, or "split" of different functions across different actors in the financial system, as was the case for the nexus of structured finance activities. With respect to securitisation products, Ashcraft and Schuermann (2008) identify a number of asymmetric information problems, such as those between lenders and securitisation originators, between originators and investors, between loan servicers and investors, between servicers and borrowers, and between investors and credit rating agencies. As will be discussed in Section 4, agency problems also occur between investors and asset managers in asset management-related shadow banking activities. Shadow banking drivers that might be most likely to be associated with this risk might be regulatory arbitrage, financial innovation, and some forms of financial deepening.

Opacity and complexity, which can lead among other things, to a lack of understanding by investors of the true risks. A number of observers of the recent financial crisis have conjectured that certain shadow banking activities, such as those linked to securitisation and the structured finance products in the buildup to the crisis, are tailored to take advantage of mispriced tail risk. The recent financial crisis has been blamed in part on the complexity and opacity of financial instruments, leading to calls for more transparency. Regulatory arbitrage and financial innovation are drivers that might be expected to lead to this type of risk.

Gennaioli et al (2012) present a model along these lines, whereby investors and intermediaries ignore the worst state of the world, which leads to underpricing and overinvestment in risky loans. Dang et al (2011) take a somewhat different approach. They model tradable debt as a form of private money and show that symmetric ignorance creates liquidity in money markets, as agents can most easily trade when it is common knowledge that no one knows anything privately about the value of the security transacted and no one has an incentive to conduct due diligence or ask questions about the value of the security. However, this market can break down when a shock causes agents to try to obtain information about the value of the underlying securities. Agents become suspicious that others know more than they do, and they become less willing to trade in the security. This can lead to a "run" on the security and cause a systemic crisis.

While opacity and complexity can arise directly from the nature of a shadow banking activity or product, these characteristics can also be generated by the ownership structure of the shadow banking entity or its place within a financial group. The increasing complexity of the structure of bank holding companies, and in particular, the expansion of groups over time to include non-bank financial institutions such as asset managers running mutual funds and hedge funds is well documented (see, for example, Cetorelli et al, 2014.) An increasingly complex organisational structure simultaneously renders more opaque the linkages between the shadow bank and other entities within the group, including banks, and the risks arising from those linkages. In addition, the perception of implicit guarantees for shadow banks that are housed within groups can influence investors' perceptions of the risks associated with the shadow bank's activities.

Kacperczyk and Schnabl (2013) offer some support for the conjecture that organisational structure can influence the riskiness of shadow banks. They find that during the 2007-2008 financial crisis, the nature of ownership or sponsorship of money market funds and the proportion of money market funds in the sponsor's total assets under management influenced the amount of risk taken on by money market funds.

3.2 Social benefits and costs

Just as banks provide enormous social benefits but may also be the source of high social costs if not adequately controlled, so can shadow banks represent a source of net social benefit or give rise to net social costs.

<u>*Potential benefits of shadow banking*</u>:

Many of the benefits arising from shadow banking may be associated with the "financial deepening" function of shadow banks. Shadow banks may:

- Increase the supply of credit when credit rationing exists, due to regulatory or institutional constraints
- Provide additional opportunities for saving
- Foster growth through financial deepening, which increases competition, helps to reduce reliance on bank funding, and may help promote international capital flows. An academic literature establishing the links between financial development and growth has developed since the early 1990s. At the same time, recent research (Rousseau and Wachtel, 2001) suggests that the positive association between financial deepening and growth that has been observed in cross-country panel data has significantly weakened in the period since 1990, due primarily to the occurrence of financial crises. When crisis episodes are removed from the sample, the relationship between financial deepening and growth still holds. In a recent paper Demetriades and Rousseau (2016) suggest that the nature of the links between finance and growth is changing and that financial depth as traditionally measured (i.e., via a composite index of seven components of financial reforms) no longer has a significant impact on growth. Rather, how well banks are regulated and supervised is the most important factor in creating a positive impact of financial reforms on growth.

The increase in non-bank funding for firms that accompanies financial deepening does not simply substitute for bank financing; it can also lead to investment that banks would not undertake. Whereas banks are good at financing relatively low-risk, highly collateralised projects, market finance may be better adapted for innovating or high-risk projects, due to the ability of markets to divide projects into a diverse menu of small-denomination securities with varying risk characteristics.[80] Somewhat along these lines, Acemoglu and Zilibotti (1997) model the increase in savings and investment that accompanies growth of an economy as greater diversification across sectors becomes possible.

There is also an extensive literature examining the potential impacts of legal frameworks and property rights on finance and growth. The findings of this literature suggest that legal guarantees of shareholders' and creditors' rights and other legal institutions improve the efficiency of firm valuations, the functioning of equity markets, access by firms to finance, and the allocation of capital

[80] See, for example, Levine (2002).

across different sectors (see Beck and Levine, 2003 for a review of this literature). These findings would also seem to suggest that the legal framework also influences the process of financial deepening.

- Improve risk sharing (financial innovation)
- Support collateral-based transactions, which can reduce counterparty risk (Claessens et al, 2012)

A number of the arguments in favour of a EU Capital Markets Union are related to the benefits of financial deepening. One idea is to foster the development of non-bank sources of finance for SMEs across the union and to reduce current differences across Member States, which are quite significant due to the fact that some countries are at earlier stages in the development of their financial systems than others.

Non-bank financing can take the form of purely market-based financing (via stocks or bonds) or via non-bank institutions such as venture capital, private equity firms, crowd-funding, peer-to-peer lending, and private placements. Pension funds, insurance companies, and asset management funds contribute to the sources of finance for firms, as they invest in bonds and equities.

Investment funds, which receive some of their funding from households, are also important holders of securities issued by firms. In Europe, the size of investment funds is limited due to market fragmentation along national lines. As a consequence, transactions costs associated with investment in these funds are higher than in countries, such as the US, with larger funds.[81] Similarly, European venture capital funds also do not achieve the size necessary to benefit from economies of scale.

The Capital Markets Union is argued to increase the range of savings and investment products to which retail and institutional investors will have access, in part as a result of facilitating expansion of investment funds through cross-border operations and entry into new markets. The increase in the range of products should enhance the opportunities for diversification by savers. The resulting increase in savings and investment products is then expected to translate into more financing for firms from non-bank sources, which should improve diversification in firms' sources of funding and lower the costs of capital.

<u>*Potential costs associated with shadow banking activities*</u>.
The potential social costs arising from materialisation of the risks associated with shadow banking include externalities, such as fire sales of assets or spill-overs to the banking sector, as well as potential direct impacts on funding or capital.

- Direct impacts on banks through use of liquidity lines or guarantees.

Clearly, liquidity lines and guarantees (explicit or implicit) between banks and shadow banking entities can cause spill-overs to the banking sector of stress in the shadow banking sector. (Acharya et al (2013) document the link between regulatory arbitrage drivers of shadow banking and such guarantees prior to the crisis.)

- Impacts on bank funding. Interconnections between banks and shadow banks can be a source of systemic risk.

Failures of shadow banks may result in contagion to traditional banks, for example, if shadow banks serve as a major source of funding. Alternatively, to the extent that shadow banks purchase traditional bank credit (e.g., via securitisations, credit-linked notes, etc.) or serve as counterparties in

[81] UCITS are currently subject to different local requirements with respect to marketing, disclosure, reporting, taxation, etc. This limits their size. According to the EC (2015), there were 36,148 UCITS in Europe in 2014, which is four times the number of US mutual funds.

derivatives transactions, distress on the part of the traditional banks can then impact other segments of the financial sector. This latter distress can then feed back into banks, if explicit or implicit bank guarantees exist. This aspect of the recent financial crisis has been documented extensively in the literature.

- Asset fire sales.

For a model of the impact of asset fire sales as a function of the size of the shadow banking sector, see Luck and Schemp, 2014.

- Counterparty risk.

Prior to the crisis, fund managers played an increasing role in offering credit intermediation through derivatives (asset-backed securities, credit-linked notes, CDSs …). Transfers of credit risk from banks to asset managers through derivatives, or the conclusion of other types of derivatives transactions between banks and asset managers can create significant counterparty risk for banks.[82]

- Heightened procyclicality of the financial sector.

The higher leverage of many shadow banks than traditional banks, combined with greater reliance of shadow banks on short-term funding can lead to greater procyclicality of shadow banking activities. Note that the impact on traditional banks of procyclicality of shadow banking activities may be greater if shadow banks are subsidiaries of financial groups.

The importance of specific risks, and hence the potential costs of shadow banking activities, as well as the benefits, will vary according to the particular activity, institutional setup, and time period. In addition to the factors cited above, agency problems, inadequate protection of investors (either through consumer protection laws or prudential-type regulation), or the absence of public backstops can all contribute to the costs of shadow banking. The size of the shadow banking sector relative to banking sector may also influence net benefits and costs, as suggested in the model of Luck and Schemp (2014).

An example of a shadow banking activity for which one might expect high net benefits might be microcredit institutions, which arise in response to credit rationing due to institutional and regulatory constraints and which contribute to financial deepening. In contrast, an example of a shadow banking activity which turned out to have high net costs was the ABS CDOs issued prior to the financial crisis and that were based on US subprime mortgages. These were highly complex products for which the risks were not well understood by investors and which were motivated in part by regulatory arbitrage.

Other shadow banking activities, such as asset management funds that invest in bonds, may ultimately yield either net social benefits or net social costs, depending upon factors such as the type of assets, the contractual arrangements with investors, and the organisational structure of the fund. All of these factors play a role in determining the likelihood the potential risks of shadow banking cited above actually materialise.

---

82 In the case of the 1998 LTCM hedge fund crisis, systemic risk stemmed from the interconnections between LTCM and the banking system, combined with a high-leverage strategy pursued by the hedge fund, thereby creating an oversized exposure for the banking system to counterparty credit risk from one single entity (Jorion, 2000).

4. Potential costs and benefits of shadow banking asset management activities

Whereas the previous section highlighted general risks and potential benefits and costs of shadow banking activities broadly defined, this section focuses more specifically on the risks, benefits, and costs of investment funds.

In contrast to banks and insurance companies, which act as principals in the intermediation of funds, asset managers usually act as agents on behalf of their clients and are subject to fiduciary duties to act in the best interests of investors.

Asset managers are intermediaries between the investors (ranging from sophisticated institutional investors, SWFs, pension funds, and insurance companies to charities, endowments and individual retail investors) and the markets. It is the clients (i.e. investors), and not the managers, who own the assets and reap the investment returns while bearing the investment risks.

Asset managers usually do not use their balance sheets in transactions between their clients and the broader marketplace, since an asset manager itself generally does not enter into financial market transactions as a principal.

There are, however, some notable examples of asset management structural issues that have posed important challenges to the global financial system. For example, the 1998 collapse of Long-Term Capital Management (LTCM), a leveraged hedge fund (see also footnote 7), disrupted the functioning of many important debt markets. Furthermore, structural weaknesses in the design of certain MMFs were an important contributor to the global financial crisis in 2008.

Concerns about such risks have been growing given the increasing investment in less liquid assets held by investment funds. Particularly in light of these changes, it is important to examine and address in advance structural vulnerabilities that could pose future financial stability risks.

4.1 Key risks with respect to shadow banking asset management activities

Liquidity and maturity mismatches, which can lead to funding runs. Investment funds, including MMFs, hold significant quantities of assets in the euro area. Prior to the crisis, it was thought that such funds were immune to runs. They were seen as being able to provide stable funding to other financial intermediaries and, therefore, as important safeguards of financial stability. In contrast to banks, funds do not promise fund investors their money back. In exchange, investors benefit from higher expected returns than from bank deposits. The crisis proved, however, that runs can occur in investment funds, especially when uncertainty exists regarding the funds' asset value (see the discussion below under opacity and complexity).

Leverage. The use of leverage by funds can increase the risk of a fund encountering financial distress, which could be transmitted to the fund's investors, counterparties or other financial intermediaries and businesses and then to the broader financial system (i.e. counterparty channel). Leveraged funds are also more sensitive to changes in asset prices through margin calls and haircuts. Also, leverage may closely interact with liquidity risk as investors may be more inclined to redeem from leveraged funds that experience stress because these funds may be perceived to be riskier than unleveraged funds. Leverage within funds may also contribute to procyclicality when funds reduce exposures during business cycle downturns or engage in automatic asset sales triggered by increases in market volatility.

Asset bubbles and asset fire sales. Just as massive liquidation of assets by asset managers and institutional investors can lead to significant price decreases due to asset fire sales, which can then impact banks' balance sheets, so can asset managers contribute to asset price bubbles (see surveys by Bikhchandani and Sharma 2000; Borio et al. 2001). More recent literature suggests the possibility of price pressures due to mutual fund flows in less liquid markets.[83]

Opacity and complexity. During the crisis, a number of types of funds (CNAV MMFs and hedge funds) became subject to runs, which in turn contributed to runs in other credit and money markets. One of the principal explanations for these runs was the opacity of the funds' assets; in particular, the fact that investors were not able to distinguish funds that were more exposed to distressed sub-prime transactions.

Agency problems. Delegation of investment decisions by investors to asset managers introduces incentive problems. Investors cannot directly assess the skills of managers and therefore must evaluate asset managers relative to their peers or relative to a benchmark. This imperfect form of evaluation may lead to trading dynamics with potentially systemic implications, related to herding behaviour and excessive risk taking by poorly performing portfolio managers.

Interconnectedness between banks and shadow banks. Because fund managers are the most important non-bank participants in credit intermediation and credit risk transfer products, interconnectedness between fund management and other (potentially systemic) sectors of the financial system is likely to increase more as asset management activities grow.

4.2 Social benefits and costs of shadow banking asset management activities

Potential benefits of shadow banking asset management activities

- Related to the benefits discussed in Section 3 in relation to financial deepening, asset managers enable their customers to participate in markets and therefore provide additional opportunities for saving.
- Asset managers thus help to increase the supply of credit and deepen the financial system by reducing the relative weight and systemic importance of banks in credit intermediation (Davis 2000).
- Business ties between fund managers and other categories of financial services companies are often seen as strengthening the resilience of the associated companies to various types of risk due to diversification, as well as cost and revenue synergies (Schilder and van Lelyveld, 2002; Bengtsson and Delbeque, 2011).

Potential costs of shadow banking asset management activities

- Impacts on bank funding.

Runs on funds and the first-mover advantage[84] for investors can cause sudden reductions in funding to banks and other financial entities. This is particularly true if the market size of the early players affected by the shock is large enough to induce a large pressure on prices. As discussed in Bengtsson (2014), the runs on investment and hedge funds during the crisis had a direct and indirect impact on financial stability.

Moreover, high redemptions forced up average maturities in the fund managers' portfolios which, when combined with an anticipation of further redemptions, led fund managers to increase

---

[83] This price impact, however, seems to be temporary and provides evidence of a first mover advantage in less liquid markets. See IMF, GFSR , April 2015 for related literature.

[84] See Schmidt et al. (2014) for the relationship between the "first mover advantage" and runs on money market funds. The authors point out that institutional investors were the first ones to recognise problems with money market funds and instigated a run in 2009.

investments in very short-term cash-like instruments. In many banking systems in Europe and the US, the supply of short term funding dropped sharply, contributing, in certain countries, to a dry-up of bank funding. Wide-spread runs on funds thus had detrimental effects on markets, with negative feed-back loops that fed further runs and ultimately severe funding difficulties for the banking system.

- Asset fire sales and asset bubbles.

The extent to which runs on funds translate into systemic risk depends on the total amount of funds under management. The degree of risk to the real economy may also depend upon the extent to which retail investors are large investors in the funds.

- Heightened procyclicality.

Investment fund assets are driven by the decisions of both end investors (fund flows) and asset managers (portfolio rebalancing) in the framework of the agreed dealing frequency and investment framework. It is important to distinguish between two types of risks deriving from the presence of intermediaries: agency problems and herding behaviour, both of which can lead to procyclicality.

Investors' flows to funds, especially those from retail investors, are procyclical and display a "flight to quality" during times of stress. As discussed by Stein (2014), a higher redemption sensitivity of less liquid funds is consistent with the existence of a first-mover advantage. The effects of fund flows on fund investment can be cushioned by liquidity risk management (precautionary cash buffers and fee policies).

Moreover, retail-oriented funds show consistently higher levels of herding than do institutional oriented funds. This could be due to the fact that less sophisticated retail investors are more prone to quickly reallocate money from funds with poor recent performance to funds with high recent returns, possibly because it is more difficult for them than for institutional investors to assess and monitor portfolio managers (Frazzini and Lamont, 2008). Herding could also be related to an accentuated search for yield by mutual funds.

- Contagion of stress due to ties between funds managers and banks.

Business ties and non-contractual obligations in the form of contingent liabilities and commitments can create an indirect channel of contagion between funds' and their sponsors. Even if the balance sheets of asset management companies are legally separated from those of the mutual funds they manage, solvency linkages may exist between funds and their asset management companies, when, for instance, the asset management's parent provides financial support to funds during crisis episodes. Moreover, several asset management companies are owned by banks and insurance groups, and the overall stability implications of these relationships are unclear. Funds could be used by parent banks as funding vehicles.

Distress in funds may be more likely to spill over to banks when the funds are entities within financial groups or conglomerates. Since the late 1990s, banks have diversified into non-interest earning activities such as asset management. This trend is global, but particularly pronounced in Europe. Data from Lipper (2011) and the ECB show that in 2013, 18 out of the 25 largest asset managers in the EU are run by banks.

While business ties between funds and other financial companies may strengthen resilience, they may also serve as channels of contagion. If financial institutions within the same group as the asset managers are systemically important, the business ties may pose a threat to financial stability.

Massa and Rehman (2008) provide evidence of information flows within conglomerates via informal channels: in managing their funds asset management companies often exploit privileged inside information that is not available to other market participants on firms that borrow from banks of the same group.

Contagion through the business risk channel can be both direct and indirect, although little research on this issue exists. A direct channel of contagion occurs when an asset management company of the group makes losses, which then reduce the capital of the entire group (in the case of prudential consolidation). In the case of non-consolidation of the asset management company, reduced profitability typically lowers dividends to the parent company and the shareholder value of the asset management company.

Indirect channels of contagion exist through non-contractual obligations in the form of contingent liabilities and commitments. In theory, such indirect channels should be limited in fund management because any losses suffered by a fund should be borne by the fund's clients. However, the crisis provided evidence of both indirect and direct contagion. Parent companies in financial groups issued implicit guarantees to absorb various risks of fund investors. This meant that risk carried by fund investors was transferred back onto the parent bank's balance sheet. Moreover, direct support was provided in three distinct forms: foregoing fees (to enhance the return to the fund investors)[85]; liquidity support (sponsoring companies provided liquidity support to funds managed by other companies in the same financial group, when those funds suffered net redemptions or margin calls)[86]; capital support[87] (during the crisis sponsors took on losses from the fund by or guaranteeing the value of the fund's assets). Further links exist if the sponsoring banks provide contingent liquidity lines, financial guarantees and other contractual commitments to investment funds such as through derivatives markets and securities financing transactions.

Recent research based on experience from the crisis suggests that there are at least three reasons why parent companies of financial groups may support an asset management company despite not being obliged to do so by contract: (1) for reputational reasons or a desire to preserve the franchise value of their firm (King and Mayer, 2009); (2) when the parent company holds common or similar positions as the fund in question and would suffer losses if the assets of the fund were liquidated; (3) when the parent company relies on funding from the fund, and may seek to prevent disruption to their funding channel (Kacperczyk and Schnabl, 2011).

Finally, we note that all of the potential social costs of shadow banking asset management activities cited above will be accentuated if funds are large relative to the market or if specific strategies or skills render an asset manager's services critical for the functioning of the market. ECB statistics (see Doyle et al., 2016) reveal a significant concentration of assets managed in a number of bigger funds for each investment policy. The concentration at individual fund level is further augmented by the concentration of assets managed (across investment policies) at the individual management company level. This concentration has potential consequences, as industry-wide stress could be triggered, for instance, by a crisis of confidence in one or more large asset management companies and in the funds they manage. Reputation problems in the asset management arm can then adversely affect the parent company, or vice versa.

---

85 In cases where the fund manager is owned by another financial firm, such foregoing of fees damages the capital position not only of the fund management company, but also the parent company and the group as a whole.

86 As long as the parent company does not suffer from liquidity shortages or troubles refinancing its operations, such liquidity support is unproblematic. However, experiences from the crisis showed that parent banks themselves suffered liquidity shortages as a consequence of them providing support (Brunnemeier, 2009).

87 According to Moody's (2010), in Europe a total of 26 investment funds received parent support between August 2007 and December 31 2009, predominantly provided through asset purchases. For instance, AXA, Société Générale and Credit Suisse took bought assets from funds managed by their asset management subsidiaries.

3. Conclusions

The term shadow banking covers a highly diverse range of activities, from securitisation to hedge funds or crowdfunding. While many of the risks associated with shadow banks resemble the risks faced by traditional banks, the importance of particular risks, and hence the potential costs of shadow banking activities, as well as the benefits, will vary according to the particular activity, institutional setup, and time period. Hence, context matters tremendously in assessing the net benefits or costs associated with the growth of any particular shadow banking activity. The size of the shadow banking sector relative to banking sector will also likely influence net benefits and costs, as will the degree of concentration of shadow banking entities.

While the presence of asset management funds provide social benefits by expanding the range of savings and investment products for investors, they also present potential risks; e.g., linked to liquidity mismatch and leverage and to agency problems or to opacity and complexity, either in terms of the asset composition of the investment fund or the linkages with banks, especially in cases where the asset management fund is owned by the bank. Risks (i.e. "step-in" risks) associated with interconnectedness shadow banks and their parent banks are also a current focus of the BCBS.

In terms of policy implications, the existing regulation, at international and European level, already cover some of the risks mentioned in this section. It is important to reflect on whether there is an adequate application of existing regulation and whether there is a need to extend its scope, considering the important distinctions between entity-based and activity-based shadow banking.

References

Acharya, V., Schabl, P., and Suarez, G. (2013) "Securitization without risk transfer," *Journal of Financial Economics*, Vol. 107: 515-536.
Adrian, T. and Aschcraft, A. (2012) "Shadow banking: a Review of the Literature," New York Fed Staff Report 580.
Adrian, T., Aschcraft, A., and Cetorelli, N. (2013) "Shadow Bank Monitoring," New York Fed Staff Report 638.
Adrian T, Shin H. S. (2010) "Liquidity and Leverage", *Journal of Financial Intermediation* 19(3):418–37.
Ari, A., Darracq Pariès, M., Kok ; C., Zochowski, D. (2016) "When shadows grow longer: shadow banking with endogenous entry", ECB Working paper No. 1943.
Ashcraft, A. and Schuermann T. (2008) "Understanding the Securitization of Subprime Mortgage Credit."
Foundations and Trends in Finance 2(3):191—309.
Beck, T. and Levine, R. (2003) "Legal Institutions and Financial Development", *Handbook of New Institutional Economics*, Claude Menard and Mary Shirley, eds.: 251-278.
Bengtsson E., (2014), 'Fund Management and Systemic Risk – Lessons from the Global Financial Crisis", *Financial Markets, Institutions and Instruments,* 23 (2): 101-124.
Bengtsson, E. and Delbecque, B., (2011), "Revisiting the European Asset Management Industry." *Financial Markets, Institutions & Instruments,* 20(4): 163–190.
Bikhchandani, S. and S. Sharma, (2000), "Herd Behavior in Financial Markets – A Review", *International Monetary Fund,* 279–310.
Borio, C., C. Furfine, and P. Lowe. (2001), "Procyclicality of the financial system and financial stability: issues and policy options." BIS Papers 1.
Brunnermeier M.K. and Pedersen L.H. (2009), "Market Liquidity and Funding Liquidity", *Review of Financial Studies*, 22(6), pp. 2201-2238.
Cetorelli, N., McAndrews, J., and Traina, J. (2014) "Evolution in Bank Complexity," Federal Reserve Bank of New York *Economic Policy Review*, March.

Claessens, S. Pozsar, Z., Ratnovski, L., Singh, M. (2012) “Shadow Banking: Economics and Policy”, IMF Staff Discussion Note, No. 12/12.
Dang, T. V., Gorton, G., Holmström, B., (2011), “Ignorance, Debt and Financial Crises”, Working paper, Yale University.
Davis, E. P., (2000), “Multiple Avenues of Intermediation, Corporate Finance and Financial Stability.”, *International Monetary Fund,* 01:115.
Demetriades, P. and Rousseau, P. (2016) “The Changing Face of Financial Development”, *Economics Letters*, Vol. 141: 87-90.
Doyle, N., Hermans, L., Molitor, P., and Weistroffer, C. (2016), “Shadow banking in the euro area: risks and vulnerabilities in the investment fund sector”, ECB Occasional paper N. 174, June 2016.
Duca , J. (2016) “How Capital Regulation and Other Factors Drive the Role of Shadow Banking in Funding Short-term Business Credit,” *Journal of Banking and Finance*, Vol. 69.
Edwards, F. and Mishkin, F. (1995) “The Decline of Traditional Banking: Implications for Financial Stability and Regulatory Policy.” New York Federal Reserve Economic Policy Review 1 (2): 27–45.
European Commission. (2015 “Economic Analysis: Action Plan on Building a Capital Markets Union”.
Financial Stability Board (2015), “Global shadow banking monitoring report 2015”, 12 November.
Financial Stability Board (2016), Proposed Policy Recommendations to Address Structural Vulnerabilities from Asset Management Activities, Consultative Document, June 2016.
Fostel, A. and Geanakoplos, J. (2014) “Leverage, Securitization and Shadow Banking: Theory and Policy”. Conference volume: Sixteenth Annual International Banking Conference. International Monetary Fund and Federal Reserve Bank of Chicago, 2013.
Frazzini, A. and Lamont, O. A., (2008), “Dumb Money: Mutual Fund Flows and the Cross-Section of Stock Returns.”, *Journal of Financial Economics,* 88 (2): 299–322
Gennaioli, N., Shleifer, A. and Vishny, R. (2012) “Neglected Risks, Financial Innovation, and Financial Fragility”, *Journal of Financial Economics*, 104: 452-468.
IMF (2014) “Shadow Banking around the Globe: How Large and How Risky?”, *Global Financial Stability Review*, October.
IMF (2015), “The Asset Management Industry and Financial Stability”, *Global Financial Stability Report*, April.
Jorion P. (2000), “Risk Management Lessons from Long-Term Capital Management”, *European Financial Management*, 6(3): 277-300.
Kacperczyk, M. and Schnabl, P., (2011), “Implicit Guarantees and Risk Taking: Evidence from Money Market Funds, Working Paper, New York Univeristy
Kacperczyk, M. and Schnabl, P. (2013) “How Safe are Money Market Funds?,” *Quarterly Journal of Economics*, Vol: 128: 1073-1122.
King, M. and Maier, P., (2009), “Hedge funds and financial stability: Regulating prime brokers will mitigate systemic risks.”, *Journal of Financial Stability*, 5:3:283–297.
Lipper, (2011), European Fund Market Review. Thomson Reuters.
Luck, S. and Schempp, P. (2014) “Banks, Shadow Banking, and Fragility”, ECB Working Paper 1726, August.
Massa, M., and Rehman, Z., (2008), “Information Flows within Financial Conglomerates: Evidence from the Banks-Mutual Funds Relation.”, *Journal of Financial Economics,* 89 (2): 288–306.
McCulley, P. (2007). Teton reflections. *PIMCO Global Central Bank Focus (2).*
Martin, A., Skeie D., von Thadden, E. (2014) “Repo runs”, *Review of Financial Studies*, Vol. 27, No.4.
Martinez-Miera, D. and Repullo, R. (2016) “Search for Yield”, CEMFI Working paper.
Mehrling, P. (2010). *The New Lombard Street: How the Fed became the dealer of last resort*. Princeton & Oxford: Princeton University Press.
McKinnon, R. I., (1973). “Money and Capital in Economic Development”, Washington: *The Brookings Institution*.
Moody’s, 2010. “Sponsor Support Key to MMFs”, available at: www.alston.com/files/docs/Moody's_report.pdf

Pescatori, A. and Solé, J. (2016) "Credit, Securitization and Monetary Policy: Watch Out for Unintended Consequences, IMF Working paper 16/76.
Perotti, E. (2013) "The Roots of Shadow Banking", CEPR Policy Insights No. 69, Dec.
Rousseau, P. and Wachtel, P. (2011) "What is Happening to the Impact of Financial Deepening on Economic Growth", *Economic Inquiry*, Vol. 49, No. 1: 276-288.
Schilder, A. and van Lelyveld, I., (2002), "Risk in Financial Conglomerates: Management and Supervision", DNB, Research Series Supervision no. 49
Schmidt, L., Timmermann, A. and Wermers, R., (2014), "Runs on Money Market Mutual Funds." Working Paper, January. http://econweb.ucsd.edu/~lschmidt/Schmidt_Timmermann_Wermers.pdf.
Shaw, E., (1973). "Financial Deepening in Economic Development", New York: *Oxford University Press.*
Stein, J. C., (2014), "Comments on 'Market Tantrums and Monetary Policy,' a paper by Feroli, M., Anil K. Kashyap, A. K., Schoenholtz K., and Hyun Song Shin, Paper presented at the U.S. Monetary Policy Forum, New York, New York, February 28.
UK Financial Conduct Authority (2016). *Market-Based Finance: Its Contributions and Emerging Issues*. Occasional Paper 18, May.

Annex 2: Regulation Belgian investment funds and asset managers

1. Undertakings for collective investment

The classification of Belgian undertakings for collective investment (UCIs) is discussed in detail in the chapter titled "Overview of the Belgian asset management sector". With a view to the comprehensibility of this chapter, a brief description of that classification is provided here, along with a summary table. The description of the regulatory framework for this sector is structured according to the subdivisions set out below.

Belgian UCIs are subdivided, for the purposes of this overview, into public UCIs and non-public UCIs. Public UCIs are UCIs that are offered to the public in Belgium[88]. An offer is not public if it is directed solely to professional investors, or if the offer is also directed to retail investors but nevertheless meets specific criteria laid down by law[89] ("limited retail"). In the following table, the various types of Belgian UCIs are set out schematically and subdivided according to whether they make public offers, may be offered solely to professional investors or make a limited retail offer.

A further distinction is made between UCIs with a variable number of units (open-ended funds) and UCIs with a fixed number of units (closed-ended funds).

Finally, a distinction is made between UCITS and AIFs (alternative investment funds). AIFs comprise all UCIs that are not UCITS.

Lastly, it should be noted that UCIs which do not have a management company ("self-managed UCIs") are subject, in addition to the provisions described in this section, to various organisational provisions that apply to management companies.

---

88 Defined as follows:

i) a communication to persons, in any form and by any means, which presents sufficient information on the terms of the offer and the securities offered to enable an investor to decide to purchase or subscribe to those securities, and which is made by a UCI, by a person authorised to transfer the securities in question, or for their account.
Anyone who directly or indirectly receives remuneration or an advantage as a result of the offer shall be considered to be acting on behalf of the undertaking for collective investment or on behalf of the person authorised to transfer of the securities in question.

ii) admission to trading on an MTF or a regulated market that is open to the public;

89 These consist of:

- offers of securities directed to fewer than 150 natural or legal persons who are not institutional or professional investors;
- offers of securities other than units in open-ended UCIs that require a total consideration of at least EUR 100,000 per investor and per category of securities;
- offers of securities other than units in open-ended UCIs that require a total consideration of at least EUR 250,000 per investor and per category of securities;
- offers of securities other than units in open-ended UCIs with a denomination per unit of at least EUR 100,000;
- offers of securities for a total amount of less than EUR 100,000 calculated over a period of 12 months.

	Professional investors	"Limited retail"	Public offers
Open-ended fund	Institutional open-ended AIF		UCITS
			Public open-ended AIF
Closed-ended regulated fund	Private *pricaf/privak*		Public *pricaf/privak*
	Private starters' fund		Public starters' fund
	Institutional real estate fund		Public real estate fund
	Specialised real estate fund		
	European Venture Capital Fund (EuVECA)		
	European Social Entrepreneurship Fund (EuSEF)		
	European Long-Term Investment Fund (ELTIF) (only professional investors)		Public ELTIF
Non-regulated funds	AIFs without regulated fund structure		

1.1 Public UCIs

1.1.1 Introduction

All Belgian public UCIs are subject to the supervision of the FSMA and must be registered with it before they may begin their activities. The FSMA must therefore either approve their choice of management company (if it is a unit trust) or grant it an authorisation (if it is an investment company). Every public UCI is required to opt for one of the categories of permitted investments for which a status has been defined by royal decree (type requirement).

1.1.2 UCITS

UCITS are undertakings for collective investment that meet the conditions of Directive 2009/65/EC. They are subject to the **Law of 3 August 2012 on undertakings for collective investment meeting the conditions of Directive 2009/65/EC and on undertakings for investment in receivables**. The aforesaid Law consists of 307 articles, among which are various provisions regarding:

- the organisation of the UCITS, including the obligation to have an appropriate structure, a depositary and directors that are fit and proper,
- transparency and reporting to the supervisory authority and to the investors, including the obligation to distribute a prospectus that has the prior approval of the FSMA and a key investor information document, and to prepare periodic reports,
- business practices, including regulations concerning the approved investment policy and concerning marketing, as well as various rules of conduct, and
- the supervision of these UCIs by the FSMA and by the statutory auditors.

The Law of 3 August 2012 was further implemented via various implementing decrees. The majority of the implementing provisions are found in the **Royal Decree of 12 November 2012 on the undertakings for collective investment meeting the conditions of Directive 2009/65/EC**, which contains specific rules governing, among other things, the depositary, legal documentation, authorised investments, investment limits and maximum leverage, authorised charges, restructuring, conflicts of interest, calculation of the net asset value, and the issuance of UCI securities and the possibility of their suspension. Detailed regulations governing the accounting, the annual financial statements and the periodic reports by the UCITS are set out in the **Royal Decree of 10 November 2006 on the accounting, annual financial statements and periodic reports of certain open-ended public undertakings for collective investment**. In addition, the **Royal Decree of 7 March 2006 on securities lending by certain undertaking for collective investment** contains the rules to be complied with regarding securities lending. An amendment to some of these royal decrees is in preparation in order to provide UCITS with additional liquidity tools: in the current state of affairs, the possibility of using swing pricing, an anti-dilution levy and redemption gates may be introduced.[90] These liquidity tools may contribute to better management of UCIs' liquidity risk.

The content of the statistical reporting to the FSMA is specified in the **Regulation of 11 September 2006 of the Banking, Finance and Insurance Commission (CBFA) regarding the statistical information to be submitted by certain public open-ended undertakings for collective investment, approved by the Royal Decree of 18 December 2006**. A Regulation replacing the above is in preparation, on the basis of which the AIFM reporting will be extended to all public open-ended UCIs, supplemented by some additional accounting data.

The FSMA has also published various additional circulars and a communication on its website which UCITS need to take into account.

UCITS are also subject to various European regulations. **Commission Regulation 2016/438 of 17 December 2015 supplementing Directive 2009/65/EC of the European Parliament and of the Council with regard to the obligations of depositaries** contains a series of implementing provisions of the UCITS Directive[91]. The form and content of the key investor information document is laid down in a uniform manner in **Commission Regulation 583/2010 implementing Directive 2009/65/EC of the European Parliament and of the Council as regards key investor information and conditions to be met when providing key investor information or the prospectus in a durable medium other than paper or via a website**.

ESMA has, like its predecessor CESR, published various guidelines with particular relevance to UCITS. The **guidelines on ETFs and on other questions relating to UCITS** include provisions for UCITS that make use of securities lending, derivatives or collateral. The **Guidelines on a common definition of European money market funds** published by CESR comprise a framework for UCIs that are promoted as money market funds or short-term money market funds. Lastly, there are various guidelines for **risk assessment and the calculation of total risk and counterparty risk for UCITS** and regarding the uniform presentation of certain data in the key investor information document (calculation of the **risk and return indicator**, calculation of **ongoing charges**, presentation of **performance scenarios**). Several of these documents are further explained in a Q&A by ESMA.

---

90 The purpose of swing pricing and of an anti-dilution levy is to protect unit-holders against the negative consequences of the acquisition or sale of the underlying assets that result from the entry or exit of other unit-holders in the UCI. Entries and exits presuppose the liquidation of the underlying assets, entailing costs to the UCI that are inversely proportionate to the liquidity of those assets. These costs may be covered by applying swing pricing or an anti-dilution levy to the investors who are entering or exiting. With swing pricing, the NAV per share can be adjusted by a pre-determined swing factor. When applying the anti-dilution levy, there may be an additional charge for investors who wish to exit (or enter) in the event that the exits (or entries) exceed a certain threshold. When applying a redemption gate, the manager of the UCI may decide to execute the orders of exiting shareholders only in part if a pre-determined threshold has been exceeded. The redemption gate can be set both at the level of the UCI or sub-fund and at the level of the individual investor.

91 This Directive was implemented in Belgian law by the aforementioned basic Law of 3 August 2012.

1.1.3. Public AIFs

General

Public AIFs are subject to the basic **Law of 19 April 2014 on alternative investment funds and their managers**[92]. The aforesaid Law consists of 515 articles, among which are various provisions regarding

- the organisation of the AIFs, including the obligation to have an appropriate structure, a depositary and directors that are fit and proper,
- transparency and reporting to the supervisory authority and to the investors, including the obligation to distribute a prospectus that has the prior approval of the FSMA and/or a key investor information document, and to prepare periodic reports,
- business practices, including regulations concerning the approved investment policy and concerning marketing, as well as various rules of conduct, and
- the supervision of these UCIs by the FSMA and by the statutory auditors.

Public open-ended AIFs

Public open-ended AIFs are generally speaking subject to the same provisions as UCITS. As noted above, the basic law for these UCIs is not the Law of 3 August 2012 but the Law of 19 April 2014 on alternative investment funds and their managers. The majority of the implementing provisions are found not in the Royal Decree of 12 November 2012 on undertakings for collective investment meeting the conditions of Directive 2009/65/EC but in the **Royal Decree of 25 February 2017 on certain public alternative investment funds and their managers, and containing various provisions**. In terms of content, the provisions of the two royal decrees are very similar.
For the rest, we refer to the legislation applicable to UCITS, including the implementing royal decrees, regulations and circulars published by the FSMA as well as EU regulations and ESMA documents. Although the last two categories are not directly applicable to public open-ended AIFs, the Belgian legislators have opted to declare them applicable to those AIFs as well, with the exception of Regulation 2016/438.

Public privaks/pricafs (private equity closed-end investment funds)

Public *privaks/pricafs* are subject to **the Royal Decree of 10 July 2016 on alternative investment funds investing in unlisted companies and in high-growth companies**. This Royal Decree contains specific rules governing, among other things, the depositary, legal documentation, investment policy and maximum leverage, accounting and periodic reports, authorised charges and conflicts of interest. As investment companies with fixed capital, public *pricafs/privaks* must be listed and in that capacity subject to the set of **rules applicable to listed companies**.

Public starters' funds

The status of public starters' funds is regulated in the **Royal Decree of 5 March 2017 on public starters' funds and private starters' *privaks/pricafs***. This Royal Decree contains specific rules governing, among other things, the depositary, legal documentation, investment policy and maximum leverage, accounting and periodic reporting, authorised charges and conflicts of interest.

---

92 An exception to this is the public ELTIF as regards the UCI rules. As regards the rules governing the status of AIF manager, the public ELTIF is subject to that Law.

Public real estate funds

Public real estate funds are subject to the **Royal Decree of 7 December 2010 on real estate funds**. This Royal Decree contains specific rules governing, among other things, the depositary, legal documentation, investment policy and maximum leverage, accounting and periodic reporting, authorised charges and conflicts of interest. More detailed information on the accounting and periodic reporting is available in the **Royal Decree of 21 June 2006 on the accounting, annual financial statements and consolidated financial statements of public real estate funds, and amending the Royal Decree of 10 April 1995 on real estate funds**. As investment companies with fixed capital, public *pricafs/privaks* are listed and in that capacity subject to the set of **rules applicable to listed companies**.

Public ELTIFs

The status of European Long-Term Investment Fund, or "ELTIF", which may be marketed to retail investors (public ELTIF) is regulated in **Regulation 2015/760 of 29 April 2015 on European long-term investment funds**. This Regulation contains specific rules governing, among other things, the legal documentation, investment policy and maximum leverage, repayment, marketing and issuing of units, and conflicts of interest.

1.2 Non-public UCIs

1.2.1 Regulated AIFs

Non-public AIFs are subject to the basic **Law of 19 April 2014 on alternative investment funds and their managers**[93]. This Law contains a limited number of provisions on the organisation and functioning of AIFs (open-ended/closed-ended, sub-funds and share classes, etc.) and on their managers.

Based on the Law of 19 April 2014, various **AIF statuses** have been defined in **the Belgian implementing royal decrees**, which comprise additional rules governing, as the case may be, authorised investments and investment policy, accounting, information disclosure, conflicts of interest, restructuring and supervision. All AIFs that have adopted such a status (and any sub-funds thereof) must be registered with the FPS Finance before they can begin their activity, with the exception of institutional real estate funds (*vastgoedbevaks/sicafi*), which must be registered with and come under the supervision of the FSMA. The following provides an overview of the statuses provided for in Belgian legislation, with their relevant implementing royal decrees:

- Institutional open-ended AIF: the **Royal Decree of 7 December 2007 on institutional open-ended AIFs** whose sole object is collective investment in the category of authorised investments referred to in Article 7, first paragraph, 2°, of the Law of 20 July 2004;
- Private *privak/pricaf*: the **Royal Decree of 23 May 2007 on the private equity closed-ended investment company** (private *privak/pricaf*);
- Private starters' fund: the **Royal Decree of 5 March 2017 on public starters' funds and private starters' *privaks/pricaf*** and the **Royal Decree of 23 May 2007 on the private *privak/pricaf*;**
- Institutional real estate fund: the **Royal Decree of 7 December 2010 on real estate funds**;
- Specialised real estate fund: the **Royal Decree of 9 November 2016 on specialised real estate funds**.

[93] Exceptions to these are the public EuVECA, EuSEF and ELTIF as regards the UCI rules. With respect to the rules governing the status of AIF Manager, the public ELTIF is subject to that Law.

EuVECA and **EuSEF**. The status and operation of the European Venture Capital Fund (EuVECA) is governed by **Regulation 345/2013 of 17 April 2013 on European venture capital funds**. The status and operation of the European Social Entrepreneurship Fund (EuSEF) is governed by **Regulation 346/2013 of 17 April 2013 on European social entrepreneurship funds**. These Regulations comprise specific rules on, among other things, the investment policy and maximum leverage, information to be provided to investors, valuation, conflicts of interest and supervision. Both Regulations are currently the subject of a review. EuVECA and EuSEF come under the supervision of the FSMA.

Non-public ELTIFs. The status of European Long-Term Investment Fund (ELTIF), which may be marketed only to professional investors, is regulated in **Regulation 2015/760 of 29 April 2015 on European long-term investment funds**. This Regulation contains specific rules governing, among other things, the investment policy and maximum leverage, information to be provided to investors, repayment, marketing and issuing of units, and conflicts of interest. ELTIFs come under the supervision of the FSMA.

1.2.2 AIFs without regulated fund structure

By contrast with public AIFs, non-public AIFs are not required to opt for one of the existing regulated AIF statuses described above. If they have not chosen one of the regulated AIF statuses, their manager is, however, subject to a registration or authorisation obligation (see below), but the AIFs themselves are not subject to any particular product regulation.

1.3 Transversal legislation

1.3.1 MMF

A new European act of legislation on money market funds (**MMF**) will enter into force. This legislation will introduce a framework for money market funds concerning, among other things, liquidity, authorised investments and diversification and transparency rules for this type of UCI. The legislation will apply to all money market funds, including UCITS as well as AIFs.

1.3.2 PRIIPs

As from the beginning of 2018, all PRIIPs, including UCIs, will be required to provide retail investors with a Key Information Document (KID). For UCITS and public open-ended AIFs, transitional arrangements will be in force until the beginning of 2020, during which they can continue to use their current key investor information document. These arrangements are based on **Regulation 1286/2014 of 26 November 2014 on key information documents for packaged retail and insurance-based investment products (PRIIPs)**.

1.3.3 Advertising rules

The Royal Decree of 25 April 2014 on certain information obligations when distributing financial products to non-professional clients lays down a series of rules that UCIs, among others, must comply with as regards their advertisements directed at retail investors.

1.3.4 SFTR

UCIs are subject to the provisions of **Regulation 2015/2365 of 25 November 2015 on transparency of securities financing transactions and of reuse and amending Regulation (EU) No 648/2012** as described above.

1.4 Foreign UCIs

For the sake of completeness, the following is noted regarding the marketing in Belgium of foreign UCIs:

- Foreign UCITS can be offered to the public in Belgium by registering, based on a passporting regime, on a list maintained by the FSMA. They continue to be subject to the legislation and supervision of their home Member State, with the exception of a limited number of rules governing their marketing in Belgium, including advertising rules, to which the Belgian legislation applies and which the FSMA supervises. This provision is included in the above-mentioned **Law of 3 August 2012.**
- Foreign AIFs offered to the public must register on a list with the FSMA. To do so, they must submit a registration dossier and be subject to a substantial portion of the legislation applicable to public UCIs in Belgium, under the supervision of the FSMA. In addition, they must follow the procedures mentioned under the next indent. This provision is included in the above-mentioned **Law of 19 April 2014.**
- Foreign AIFs that are marketed in Belgium without a public offer must comply with a regulation introduced for the purpose by the AIFM Directive. The procedure to be followed varies depending on the status and/or the home country of the AIF and/or of its manager. This provision is included in the above-mentioned **Law of 19 April 2014.**

2. Managers

2.1. Introduction

Management companies of UCITS, external managers of AIFs (AIF managers) and internal managers of AIFs (self-managed AIFs) governed by Belgian law (**referred to jointly as "the managers"**) must obtain an authorisation from the FSMA before beginning their activities.[94]

The authorisation covers the managerial functions performed by the manager, namely, portfolio management and risk management, the administration of the UCI/AIF (accounting, portfolio valuation, etc.), marketing and activities relating to assets held by the AIF).[95] Alongside the management of UCIs/AIFs, supplementary activities may be carried out by managers that are management companies. The latter are also permitted to provide discretionary and individualised portfolio management services as well as ancillary services, comprising investment advice, safekeeping and administration for units of undertakings for collective investment, and the receipt and transmission of orders for financial instruments.[96]

[94] It should be noted that self-managed UCITS are subject to a series of provisions that to a large extent are identical to those which apply to the managers, as described in point 2.

[95] The function of risk management is not considered a full-fledged managerial function based on the UCITS legislation, but every UCITS management company is required to put in place an internal risk management function. Based on the AIFM legislation, all AIF managers must obtain an authorisation at least for the functions of risk management and portfolio management. Based on the UCITS legislation, a UCITS management company cannot be authorised to engage in marketing unless it is also authorised to carry out the function of portfolio management and/or administration.

[96] UCITS management companies that do not also hold an authorisation as AIF management companies cannot provide discretionary portfolio management and investment advice as an ancillary service. We also note that management companies are not authorised to provide solely discretionary portfolio management services and ancillary services, or ancillary services alone without also providing discretionary portfolio management services.

These managers are subject to strict prudential (conditions for authorisation and organisational conditions, fit and proper rules for the directors, internal control functions, etc.) and financial (minimum own funds, liquidity management policy, etc.) supervisory regimes, pursuant to either the UCITS Directive 2009/65/EC[97] or the AIFM Directive 2011/61/EU[98], which are comparable to the one imposed on credit institutions by the Law of 25 April 2014 on the status and the supervision of credit institutions.[99]

On the one hand, UCITS management companies are governed principally by the **Law of 3 August 2012 on undertakings for collective investment meeting the conditions of Directive 2009/65/EC and on undertakings investing in receivables**. This law transposes UCITS Directive 2009/65/EC.
These management companies are also subject to the **Royal Decree of 12 November 2012 on management companies of undertakings for collective investment**, which details certain prudential rules provided for in the UCITS V Directive.[100]

On the other hand, self-managed AIFs (internal managers) and AIF management companies (external managers) are subject to the **Law of 19 April 2014 on alternative investment funds and their managers**. That law transposes UCITS Directive 2011/61/EC.

In addition, **Commission Delegated Regulation (EU) No 231/2013 of 19 December 2012 supplementing Directive 2001/61/EU of the European Parliament and of the Council with regard to exemptions, general operating conditions, depositaries, leverage, transparency and supervision** is directly applicable to them.

Management companies of public AIFs are further subject to the **Royal Decree of 25 February 2017 on certain public alternative investment funds and their managers, and containing miscellaneous provisions**. The latter is intended to align the requirements applicable to UCITS management companies with those for management companies of public AIFs.
The AIFM Directive 2011/61/EU, adopted in response to the financial crisis of 2008, contributes to the creation of a framework for the activities of shadow banking. It also regulates managers of funds other than UCITS, which were not previously subject to significant regulation, such as hedge funds, private equity funds, etc. Generally speaking, the AIFM Directive is intended to ensure that the activities of managers of these types of funds practice greater transparency and that the risks associated with their activities in terms of the stability of the financial system may be monitored and addressed.

---

97 Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations, and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS).

98 AIFM Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on alternative investment fund managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010.

99 Only managers of small-scale AIFs within the meaning of the AIFM Directive may limit themselves to applying for registration with the FSMA. The latter is a light regime based on which these managers are subject exclusively to reporting obligations vis-à-vis the FSMA. They are required to submit information regularly to the FSMA on the principal instruments that they trade in and on the principal exposures and most important concentrations of the AIFs under management, so as to allow the FSMA to monitor systemic risk effectively. However, if these managers offer the AIFs they manage to the public, they are required to obtain an authorisation from the FSMA and are subject to the same prudential regime as traditional AIF managers.

100 That royal decree partially transposes Commission Directive 2010/43/EU of 1 July 2010 implementing Directive 2009/65/EC of the European Parliament and of the Council as regards organisational requirements, conflicts of interest, conduct of business, risk management and content of the agreement between a depositary and a management company.

The UCITS and AIFM directives provide for a passporting regime.

Based on the UCITS Directive, UCITS management companies can, provided they meet the conditions put in place by the UCITS Directive, carry on their activities of collective management of investment portfolios in another Member State of the European Economic Area than their home Member State, either by establishing a branch or via the freedom to provide services. The provisions of the UCITS directive relating to the freedom of establishment and the freedom to provide services are "maximum harmonisation" provisions. They establish a strictly defined framework from which Member States cannot derogate.

Contrary to the passporting regime set up by the UCITS Directive, the one provided for in the AIFM Directive is a passporting regime with limited effect, in the sense that it is limited to management of AIFs marketed to professional investors[101] and to the marketing of AIFs to such investors. The Belgian legislation submits[102] managers of AIFs that are offered to the public in Belgium to stricter rules than those that follow from the AIFM Directive. In concrete terms, these AIF managers are subject to two regulatory layers: the first comprising rules arising from the AIFM Directive, and the second consisting of national rules applicable to managers of AIFs offered to the public. These stricter national rules, which are intended to protect retail investors, are comparable to those that apply to management companies of UCITS (which, by definition, can be offered to the public).

The only form of cumulation permitted under the above-mentioned regulations is the combination of an AIFM authorisation, which confers the right to manage AIFs, and a UCITS authorisation, which confers the right to manage UCITS; this arrangement makes it possible to carefully delineate the activities of managers.

All UCITS management companies currently authorised in Belgium also hold an authorisation as an AIF management company.

Moreover, supplementary activities (such as discretionary and individualised portfolio management and investment advice) that may be carried out by managers that are management companies are subject to **MiFID Directive 2004/39/EC**.[103] [104]

2.2. Principal prudential requirements

Given the similarity between the prudential requirements that apply to UCITS management companies and those that apply to AIF managers, the provisions listed below are aimed at all of these managers.[105]

---

101 The AIFM Directive lays down rules for AIFs offered to professional investors within the meaning of that Directive.

102 In accordance with the AIFM Directive.

103 Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments amending Council Directives 85/611/EEC and 93/6/EEC and Directive 2000/12/EC of the European Parliament and of the Council, and abrogating Council Directive 93/22/EEC;

104 Reference is also made to the Royal Decree of 27 April 2007 transposing the MiFID Directive and amending in particular the Law of 2 August 2002 on the supervision of the financial sector and on financial services, as well as the Royal Decree of 3 June 2007 containing the rules and procedures for transposing the MiFID Directive.

105 The phrasing of the requirements contained below comes from the AIFM legislation. The requirements set out in the UCITS legislation may be phrased differently, but their objective is similar.

Some of these requirements apply to the entire group of such managers. Where one of these requirements applies only to AIF managers or only to UCITS management companies, the text below states this clearly.

Some additional regulatory requirements[106] apply only to management companies of UCITS and to managers of AIFs offered to the public. They are justified by the wish of the legislators to offer heightened protection to retail investors.

2.2.3. Regulatory requirements applicable to all managers

Managers are required to obtain an authorisation from the FSMA before beginning their activities. To do so, they must satisfy in particular the following requirements:

- **the persons who are responsible for the day-to-day activities of the manager** must meet the conditions of **fitness and propriety**. Their identity, as well as that of any of their successors, must be communicated immediately to the FSMA.
- **shareholders with qualified shareholdings**[107] must possess the qualities necessary to ensure the sound and prudent management of the manager.
- the internal organisation must meet precise requirements as regards **procedures**, and must have the **appropriate human resources and technologies**. The manager must, in particular, have solid administrative and accounting procedures and put in place control and security measures in the area of electronic data processing.
- internal control measures must be put in place, including the establishment of the following independent control functions: **compliance, risk management and internal audit.**
- the **delegation** by the manager of the exercise of certain managerial functions to a third party is subject to very specific rules. Thus, any delegation must first be notified to the FSMA. In so doing, the manager must be able, in particular, to justify objectively the entire delegation structure. Likewise, delegation may not impede the FSMA's exercise of appropriate supervision of the manager, and may not prevent the manager from acting in the best interests of its participants. The manager must also be in a position to prove that the delegate is qualified[108] and able to perform the functions in question.
- for each UCITS/AIF it manages, the manager must designate a single **depositary**. The latter is tasked with custody of the fund's assets. It is responsible in the event of loss of the assets entrusted to it, unless it can successfully prove that the loss resulted from an external event beyond its control.
- the manager's **capital** and **level of own funds** must meet strict requirements.

Once the authorisation has been obtained, the exercise of managers' activities will be subject to a certain number of operating conditions:

---

[106] Self-managed AIFs whose units are offered to the public are also subject to additional regulatory requirements (see the previous point regarding UCIs).

[107] That is, a shareholding greater than or equal to 10% of the capital or voting rights, or below this threshold but conferring on the shareholder a significant influence on the management of the manager.

[108] Meaning that the delegate has sufficient resources to perform the tasks in question and that the senior managers are fit and proper to perform their functions. Moreover, where the task delegated is portfolio or risk management, the delegation may only be conferred upon companies that are authorised or registered to provide asset management and are subject to supervision or, where this condition cannot be met, then it may be done only with the prior approval of the FSMA. Moreover, where the task delegated is portfolio or risk management and is conferred on a company based in a third country, then over and above the obligations mentioned above, there must also be cooperation between the FSMA and the company's supervisory authority.

- they will thus have to comply with conduct of business rules similar to those provided for in the MiFID Directive, such as the best execution obligation and the rules governing the handling of subscription and redemption orders, addressing complaints and the rules governing personal transactions.
- they must put in place provisions aimed at preventing, identifying, managing and monitoring **conflicts of interest**. To this end, the manager must maintain a register of conflicts of interest.
- the **remuneration policy pursued** by the managers must meet strict requirements. Generally speaking, the remuneration policy must promote a **sound and effective risk management and must not encourage taking risks that would be incompatible with the risk profile, the regulations or the articles of association of the UCIs/AIFs managed**. Moreover, rules have been laid down governing the deferral of payment of the variable remuneration as well as the payment of a part thereof in units of the UCIs/AIFs managed. As well, any variable remuneration will be paid out only if it is compatible with the manager's financial situation as a whole, and if it is justified by the performance of the operational unit of the UCIs/AIFs managed and of the person in question.
- the **function of risk management** must fulfil certain conditions and must be separate, in operational and hierarchical terms, from the operational units (including the portfolio management functions). In addition, the manager must put in place appropriate risk management systems in order to detect, measure, manage and follow in an appropriate manner all the risks associated with each investment strategy of the UCIs/AIFs managed and to which each UCI/AIF it manages is exposed or is liable to be exposed. It must also ensure that **the risks associated with each investment position of the UCI/AIF and their overall effect on the portfolio of UCIs/AIFs may be detected, measured, managed and monitored appropriately at any time, in particular by appropriate crisis simulations**.
- the managers must ensure that appropriate and consistent procedures are put in place in order to make possible **an independent and adequate evaluation of the assets of the UCIs/AIFs managed.**[109]
- they must respect the specific rules governing **liquidity management**. In this context, the manager must carry out **crisis simulations** under normal and exceptional liquidity conditions and put in place appropriate procedures for measuring the liquidity of the UCIs/AIFs managed.
- only AIF managers are subject to specific obligations as regards the provision of information to investors and the authorities.
    - **information to investors**: the managers must prepare an annual report for every AIF they manage or distribute within the European Economic Area, and must make that report available to participants upon request. The report is also to be made available to the FSMA and, where applicable, the authorities of the AIF's home Member State. Moreover, certain information must be provided for each AIF by the manager to the participants before the latter invest in it, or on a periodic basis[110].
    - **information to the FSMA**: every AIF manager is required to submit certain items of information to the FSMA, such as the principal markets and instruments on which

[109] The UCITS legislation requires only that UCITS management companies must guarantee that the price determination and evaluation models used for the UCITS they manage are fair, clear and not misleading, in order to respect their obligation to act solely in the best interests of participants. The UCITS management companies must be able to demonstrate that the UCITS portfolios they manage were accurately evaluated.

[110] For example, a description of the strategy and investment objectives of the AIF, a description of the liquidity risk management of the AIF, including rights to repayment in both normal and exceptional circumstances, and the existing arrangements with participants as regards repayment, the AIF's current risk profile, the management system of the risks used by the manager to manage risks and the total amount of leverage which the AIF utilises.

the manager is trading for the account of the AIFs managed, the percentage of the AIF's assets that have been subject to special treatment given their non-liquid nature, the current risk profile of the AIF and the risk management systems used by the manager to manage market, liquidity, counterparty and other risks, including operational risk. Furthermore, a manager that manages AIFs which make substantial use of leverage must make available to the FSMA information on the general level of leverage it uses for each AIF it manages, with a breakdown of the leverage depending on whether it comes from borrowing cash or securities, on the one hand, or from derivative financial instruments on the other. **This information is intended to ensure that the FSMA has (a) a list of all the AIFs managed by a given manager, (b) is informed of the markets on which the manager is active, the instruments it is trading in and the assets in which the AIF has invested, and (c) is informed of the specific liquidity risks and of the level of leverage used. The FSMA forwards the information received to the National Bank of Belgium. If, based on the information received, the National Bank of Belgium notes that a significant counterparty risk involving a manager or an AIF is liable to arise as regards a credit institution or other systemically important institutions in other Member States, it informs the FSMA, which transmits this information on a bilateral level to the competent authorities of the other Member States directly concerned.**

2.2.4. The principal regulatory requirements applicable only to management companies of UCITS and to managers of AIFs offered to the public

The management companies of UCITS and of AIFs offered to the public must, moreover:

- ensure that the **administrators, members of the management committee**[111] **and the independent control functions**[112] are **exclusively natural persons** and have at all times the necessary **fitness and propriety** for exercising their duties. The appointment of the aforementioned persons is subject to **prior approval by the FSMA**.[113] The directors of management companies are, moreover, subject to strict rules governing the exercise of external functions in order to prevent conflicts of interest and to ensure that they are sufficiently available.
- designate an **accredited statutory auditor** who carries out the audit functions provided for in the Companies Code. The latter are required primarily to evaluate the financial statements prepared by management companies, as well as the internal control measures adopted by the latter, and shall report to the FSMA on the results of their audit. In addition, they are entrusted with a signalling function vis-à-vis the FSMA.[114]
- set up an audit committee within the board of directors, comprising at least one independent director as defined in the Companies Code.
- **evaluate their OTC instruments in a precise and independent manner** and submit an **annual report to the FSMA** giving a true and fair view of the types of derivative instruments used,

[111] Or, in the absence of a management committee, the senior management.

[112] That is, compliance, risk management and internal audit.

[113] The FSMA must also be informed in advance of the (non-)renewal of their appointment, as well as of their termination or resignation.

[114] The signalling function means that they must take the initiative to report to the FSMA if they note any decisions, actions or developments that significantly affect or may affect the financial position of the management company or its administrative, accounting, technical or financial organisation or its internal control. Moreover, they inform the FSMA of decisions or actions that could constitute a violation of the Companies Code, the articles of association of the management company or the applicable legislation.

the underlying risks, the quantitative limits and the methods chosen to evaluate the risks associated with transactions in derivative financial instruments for each UCI/AIF or sub-fund managed.

- draw up an **appropriate ethics policy** aimed at preventing any misuse of funds that could reasonably be supposed to affect the stability and integrity of the market.
- respect the **regulatory coefficients** determined by the FSMA as regards **solvency**, **liquidity** and **risk concentration**.
- adopt a policy on own funds requirements that is appropriate to the activities they perform or intend to perform (with a view to the nature, volume and complexity of those activities, the associated risks and their risk management policy). They must regularly evaluate this policy and adapt it where necessary.
- **notify the FSMA in advance of any change to the capital structure**, in so far as this involves a qualifying holding or a crossing, upward or downward, of the thresholds of 20%, 30% or 50% or if the consequence of such a crossing is that the management company becomes or ceases to be the subsidiary of the person undertaking the acquisition or disposal.[115] The FSMA evaluates the acquisition, specifically as regards the fitness and propriety and the financial solidity of the candidate buyer, and the management company's compliance with its prudential obligations, and ensures that there is no reason to suspect money laundering or terrorism financing on the part of the proposed acquirer[116]. Where appropriate, the FSMA may oppose the envisaged acquisition.[117]
- **submit a detailed statement of financial position to the FSMA every quarter**, in accordance with the accounts and inventories.
- **abstain from owning any holdings in commercial companies.**

2.3. Supervision by the FSMA

The FSMA sees to it that managers fulfil at all times the conditions for granting an authorisation and operates in accordance with the applicable legislation and regulations. It ensures that the management and financial position of the managers are such that they guarantee the due fulfilment of their commitments and offer sufficient guarantees of their solvency, liquidity or profitability. It also verifies that the management structure, the administrative, accounting, technical or financial organisation and the internal control of managers are adequate under the applicable legislation and regulations.

The FSMA grants authorisation to managers before they begin their activities. Moreover, the FSMA analyses any changes to the authorisation dossier[118] as well as the policies and procedures

[115] As a complement to the legal obligation of occasional reporting of acquisitions and disposals of qualifying holdings by management companies, the FSMA also invites the latter to inform it promptly, as part of the ongoing dialogue that is necessary for optimal prudential supervision, of any acquisition or disposal of their shares or units which, although not falling under the legal obligation of occasional reporting, may have a significant effect on the prudential assessment of the situation of the management company. Such is the case, for instance, where the management company becomes aware of an acquisition or disposal whereby the one acquiring or the one disposing has crossed or will cross the 5% threshold, and therefore must itself notify the FSMA for information purposes only.

[116] Where a credit institution or a natural or legal person controlling such an institution is concerned, the FSMA carries out the assessment in concert with the National Bank of Belgium.

[117] Where the FSMA has reasons to consider that the influence of the proposed acquirer is such as to compromise the sound and prudent management of the management company, it may suspend the exercise of the voting rights attaching to the shares or units held by the shareholder, or may order the shareholder in question to dispose of the units it holds by a date laid down by the FSMA;

[118] Such as changes to the composition of the board of directors or changes to the risk management policy.

adopted.[119] Similarly, the FSMA analyses the reports prepared by compliance, the reports by senior management on the evaluation by internal control, as well as the financial statements of the managers. Lastly, the FSMA conducts on-site inspections and regularly holds meetings with managers and their statutory auditors.

Should the FSMA determine that one of the conditions for authorisation or conducting business is not/no longer fulfilled, it shall lay down a **deadline for recovery** by which the situation in question must be remedied. If, by the deadline, the situation has not been remedied, the FSMA may take measures such as designating a special auditor, imposing requirements in terms of solvency, liquidity and risk concentration, suspending the manager's activity, replacing the members of the board of the management company or withdrawing the manager's authorisation. The FSMA may also impose **administrative sanctions** on managers. The failure to respect certain rules, moreover, constitutes a criminal offence.

119 Such as the policy for handling conflicts of interest, the remuneration policy, ethics policy and risk management policy.

Annex 3: Supervisory status of lenders

1. General framework and supervisory powers

The Law of 19 April 2014 inserting Book VII into the Code of Economic Law (CEL)[120] organises, among other things, the status of mortgage lender and consumer credit provider.

The provisions of Book VII of the Code of Economic Law regarding credit abrogate the Law of 12 June 1991 on consumer credit and the Law of 4 August 1992 on mortgage credit.

Supervision of compliance with these provisions is carried out in part by the FSMA and in part by the Federal Public Service (FPS) Economy. The legislators have entrusted the FSMA with the task of supervising compliance with the provisions governing access to the business of lenders. These provisions are found in Chapter 4 of Title 4 of Book VII of the CEL, which entered into force on 1 July 2015. The FSMA is thus tasked with handling the authorisation dossiers of lenders, while the FPS Economy ensures compliance with the other provisions of Book VII relating to credit, and in particular the provisions on credit promotion, the execution and performance of credit contracts, the withdrawal of credit, the registration of data with the Central Individual Credit Register, etc. The FPS Economy also examines whether all model contracts comply with all the provisions of Books VI and VII of the CEL and approves any subsequent changes made thereto.

A lender is defined as a person that extends credit as part of its commercial or professional activities. It should be noted that only those lenders that extend credit to consumers habitually resident in Belgium are required to obtain an authorisation pursuant to Book VII of the CEL. Thus, leasing activities do not fall within the status of lender except if they are addressed to consumers. It should also be noted that factoring is not subject to these regulations.

2. Lenders governed by Belgian law

As regards access to the business of lender, a separate authorisation is required for lenders that provide mortgage credit and those that provide consumer credit. The conditions for obtaining an authorisation and for carrying on the business are similar for both statuses, however, and a single legal person may combine both activities.

Credit institutions, insurance companies, electronic money institutions and payment institutions are exempted from certain conditions for obtaining an authorisation, given that they are already subject to the prudential supervision of the National Bank of Belgium (NBB).

Moreover, Article VII. 3 of the CEL sets out a series of exceptions pursuant to which certain credit contracts or lines of credit are not subject to the provisions of Book VII. On the basis of the same Article, the Royal Decree of 23 October 2015 provides that certain Articles of Book VII do not apply to credit extended by an employer, or to social credit[121].

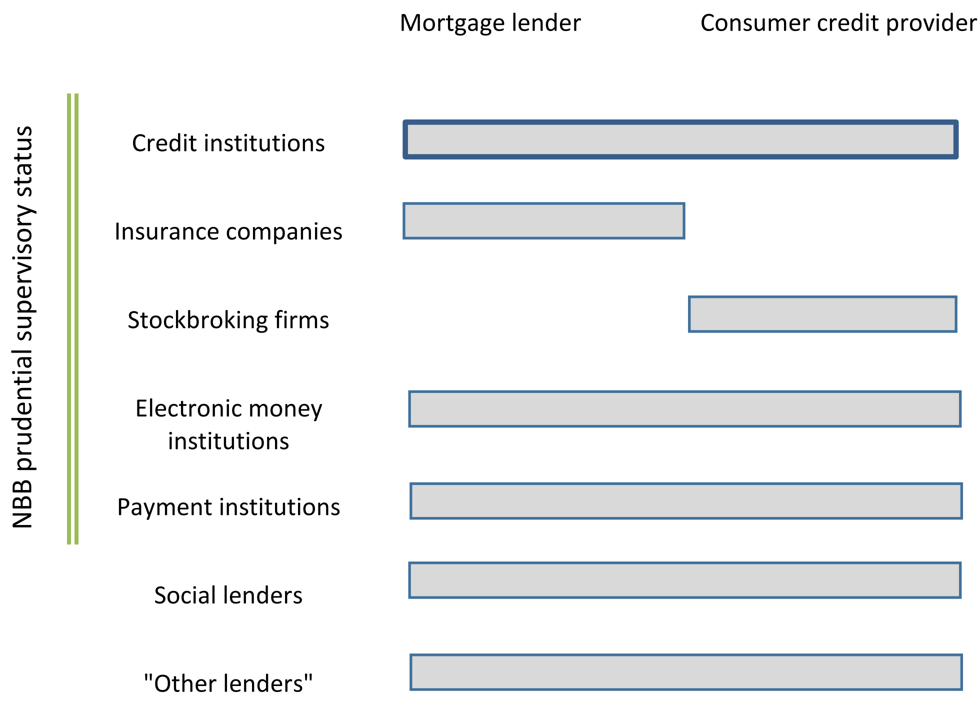
Thus, lenders can be divided into three categories: those subject to the prudential supervision of the NBB, "social" lenders, and "other lenders", as shown on the diagram below. It should be noted that

---

120 The Law of 19 April 2014 inserting Book VII "Payment and credit services" into the Code of Economic Law, inserting definitions specific to Book VII and the penalties for infringements of Book VII into Books 1 and XV of the Code of Economic Law, and containing miscellaneous provisions.

121 Royal Decree on the implementation of Article VII 3, § 4 of the Economic Law Code as regards social lenders and employers.

the legislators have not provided for insurance companies to be authorised as consumer credit providers or for stockbroking firms to be authorised as mortgage lenders.



Source: FSMA

Given the aforementioned exceptions, it is mainly the provisions on the organisation of the lender and on compliance with anti-money laundering legislation that apply to lenders who are already authorised for purposes of prudential supervision and to social lenders.

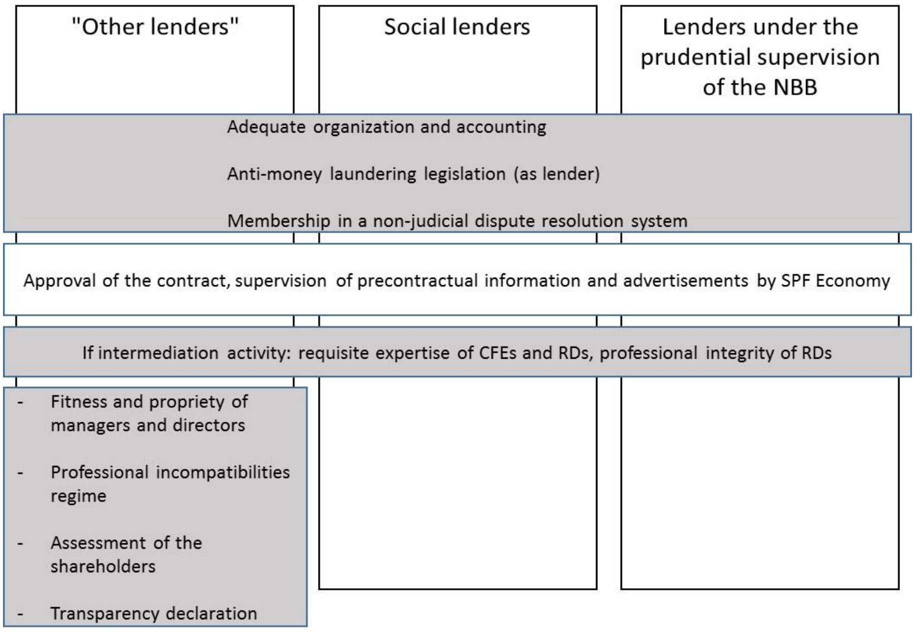
For the "other lenders", the provisions on the minimum capital requirement (the amount of which varies from 250,000 to 2,500,000 euros depending on the type of credit), the quality and transparency of the shareholders, the professional incompatibilities regime and the fit-and-proper requirements for the members of the statutory governing body and for members of senior management apply[122].

Moreover, where the lender, of whatever category, provides intermediation, the same requirements apply as those for credit intermediaries as regards the integrity of those responsible for distribution (RD) as well as the professional expertise of the said RDs and of customer-facing employees (CFE). These requirements fall within the purview of the FSMA for all categories of lenders.

If no activity of intermediation is carried out, the aforesaid requirements apply solely to those intermediaries with whom the lender works. The lender must ensure that it works only with intermediaries registered with the FSMA.

The main requirements for the status of lender are summed up in the table below (the competence of the FSMA is indicated in grey):

122 These are requirements similar to those provided for in the supervisory laws governing the other prudential statuses (credit institutions, investment firms, payment institutions, etc.).



Source: FSMA

Having regard to the activity being carried on, the FSMA expects the authorisation dossier to contain detailed information on the lender's organisation and, in particular, on the management of credit risk and market risk, as well as on the management of operational risk, taking into account the fact that certain risks may be limited in light with of the size of the lender or the scale of its activities. Moreover, the technical means used to limit the various risks may also vary depending on the lender's size and its actual activities.

The lender may meet these requirements either by its own means or by delegation to third parties. If the lender outsources one of its own activities or processes, it should ensure that the subcontractor does not ultimately carry out any lending or intermediation activity in its own right. The organisation of the subcontracting should be in line with sound management practices as regards subcontracting[123].

Moreover, the authorisation dossier should indicate the number and volume of operations envisaged. Lenders should provide information on the nature and volume of the activities envisaged. This information should include a financial plan based on the outstanding figures (amounts and number of contracts) and the production figures for the most recent financial year (amounts and number of contracts). This information should be broken down by type of contract[124]. The financial plan should also contain information on the client segment, the lender's market position and the geographical sector where the lender will carry on its activities.

3. Regime of derogations for assignees of claims arising from mortgage loans for real estate, and for lenders whose activity is limited to the management and settlement of existing loans

Article VII. 159, § 2/1 provides that lenders that no longer extend credit but limit themselves to managing and settling existing loans may be entitled to certain derogations.

[123] Sound management practices as regards subcontracting by lenders are set out in FAQ no. 187 published on the https://mcc-info.be.

[124] Art. VII.160 CEL.

Thus, Article 8 of the Royal Decree of 13 May 2017[125] provides that these lenders are not subject to the minimum capital or own funds requirements, as long as the credits managed are not lines of credit.

Moreover, Article VII.159, § 3 also provides that assignees of claims arising from mortgage loans for real estate are required to hold an authorisation. If the assignee is an institution for the mobilisation of receivables within the meaning of the Law of 3 August 2012[126], it is not subject to the minimum capital requirement. However, the said Article specifies that additional derogations may be granted by the King to these institutions or other entities.

The aforementioned Royal Decree thus organises the following regime of derogations, distinguishing different situations, which may be presented in simplified form as follows:

- in the case of a transfer by way of security or a transfer through the realisation of collateral, the assignee is not required to hold an authorisation provided it belongs to one of the categories referred to in Article 2[127];
- in the case of assignment of full title, the assignee[128] is required to hold an authorisation but is not subject to certain requirements regarding the supervision of distribution activity, the archiving of certain data and membership in a non-judicial dispute resolution system[129], without prejudice to any derogations already provided for in Book VII;
- in the case of an assignment in favour of a mobilisation institution, that institution is not subject to certain requirements regarding the supervision of distribution activity, the archiving of certain data and membership in a non-judicial dispute resolution system[130] or the own funds requirement, without prejudice to any derogations provided for already in Book VII; the mobilisation institution may, moreover, take the form of an investment fund;
- a regime of derogations identical to that for mobilisation institutions has also been instituted for AIFs governed by the law of an EEA state and a similar regime for the Institution for Occupational Retirement Provision (IORPs).

4. Lenders governed by foreign law

Articles VII. 174 to VII. 76 of the CEL organise the supervisory regime for lenders governed by foreign law. These articles distinguish two categories of lenders:

- first, lenders governed by the law of another EEA state which hold a regulated status under which they are authorised to extend credit in their home Member State. These lenders may carry on their activity in Belgium either via a branch or under the freedom to provide services, without the prior authorisation of the FSMA but subject to a notification procedure. These lenders are required, however, to obtain approval for their credit contracts from the FPS Economy;

---

125 Royal Decree laying down derogations from the conditions for the authorisation and pursuit of the business of lenders for assignees of claims arising from mortgage loans for real estate and for lenders that no longer extend credit but only manage and settle existing credit, and amending Articles 3 and 4 of the Royal Decree of 29 October 2015 implementing Title 4, Chapter 4, of Book VII of the Code of Economic Law, as regards the application for and maintenance of an authorisation as lender.

126 The Law of 3 August 2013 on various measures to facilitate the mobilisation of receivables in the financial sector.

127 These categories are: EEA credit institutions, EEA insurance companies, EEA investment firms, central banks and certain international bodies.

128 Other than a central bank or the international bodies referred to in Article 2, a).

129 On condition that the assignee was a member of the non-judicial system for consumer disputes and that the consumer was not notified of and did not acknowledge the transfer.

130 Idem 9.

- secondly, other lenders governed by foreign law, which are required to obtain an authorisation from the FSMA and for which Article VII 176 details the applicable provisions.

5. The sanction provision

The provisions relating to the investigation and determination of infringements, including the criminal and administrative sanctions liable to be applied in the event of infringements of the provisions of Book VII of the CEL, are restated in Book XV of the CEL as regards the application of the Law. In this regard, the FSMA has the arsenal of measures and sanctions that is generally available to it for the purpose of exercising its supervisory powers vis-à-vis other regulated undertakings. The FSMA may thus impose the payment of a penalty or an administrative fine in the event of a failure to comply with the applicable legal provisions.

Where the FSMA determines that a lender is not operating in compliance with the legal provisions that apply to it, the FSMA sets a deadline by which the lender must have remedied the non-compliance that was identified. If, by the end of that deadline, the failure to comply continues, the FSMA may take various measures ranging from the designation of a special auditor to the revocation of the authorisation.

The FSMA will automatically delete a lender at the request of the FPS Economy in the event that a serious infringement of the provisions of Book VII that fall within its competence. In that case, the FSMA will take the measure without a fresh examination of the substance of the dossier.

Lastly, civil sanctions are provided for in Articles VII. 196 to VII. 214 of the CEL, in particular where a credit contract is concluded by a lender who is neither authorised nor registered.