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# Shadow Banking: An Exploratory Study for the Netherlands

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*Central bank and prudential supervisor of financial institutions*

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## **Shadow Banking: An Exploratory Study for the Netherlands**

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## **Glossary**

# 1 Introduction

**When the financial crisis erupted in 2007, it quickly became clear that many vulnerabilities had built up in the system, unnoticed by the financial authorities.** Assets that had been considered safe proved to be risky and illiquid, the level and spread of risks were unclear and many market parties suddenly became aware of the enormous leverage within the system. When these vulnerabilities emerged, they proved difficult to control using the available crisis management tools. Much of the credit intermediation process had shifted to non-bank entities and had become fragmented across different jurisdictions. While this ‘shadow banking system’ was not the immediate cause of the crisis, it underpinned the build-up of vulnerabilities and reduced the scope for effective intervention.

**Shadow banking means that financial intermediation takes place differently from traditional banks, and is largely carried out by institutions other than banks.** These parties together form an intermediation chain in which credit, maturity and liquidity transformation takes place. Different processes are carried out in the various parts of the chain, such as securitisation and the creation of structured products geared to a specific investor risk profile. Banks, insurers and pension funds are by definition not part of the shadow banking system, but do interact with it. For example, banks are generally the originators of loans to the public, which are then securitised; institutional investors are in turn important buyers of securitised products.

**The opportunities for shadow banking have increased substantially in recent decades as financial flows have become less tied to national borders and specific sectors.** Financial innovation is one of the drivers of this process, but so are supervisory and tax arbitrage. Splitting up the intermediation process offers opportunities to structure financial instruments and entities in a way that reduces solvency requirements and tax on profits, for example. This is not a new phenomenon: many examples can be found throughout history of financial structures designed to optimally respond to prevailing regulations (Box 1).

### Box 1 - Earlier forms of shadow banking

Financial intermediation outside the traditional banking system is not a new phenomenon – especially in the Netherlands, which has had a highly developed financial services sector for a long time. As early as in the eighteenth century – before the regular banking system came to maturity – international financial networks were in place, with credit intermediation services being provided based on collateral. The Netherlands was an important hub in that system.<sup>1</sup> In the more recent past, there are several examples of structures outside the regular banking system that are designed to help circumvent regulations.

In the United States, Regulation Q was in force between 1933 and 2011. Until 1986 this regulation capped interest payments on bank deposits, in order to combat unfair competition through excessively high interest rates, and also to prevent abuse of the deposit guarantee system. In response to this, new forms of saving developed outside the banking system. One example was the Eurodollar market, which emerged in the 1960s: banks outside the United States offered the opportunity to open dollar accounts, which fell outside the scope of the interest rate restrictions. Regulation Q was also one of the drivers behind the development of American money market funds from the 1970s onwards.

In the first decades after the Second World War, many countries operated a policy of credit restrictions. This was also true for the Netherlands: until the early 1990s, DNB regularly imposed curbs on lending with the aim of keeping the growth in the money supply – and therefore inflation – under control. This prompted the development of credit vehicles outside the banking system, such as ‘near banking’, in which businesses began lending to each other – with or without the mediation of a bank – or institutional investors took over a part of the intermediation function.

The first Basel Capital Accord (‘Basel I’), dating from 1988, set an international minimum capital standard, but also introduced more incentives to take risks off banks’ balance sheets by means of securitisation. This in turn provided a strong boost to financial innovation and the development of structured products that have become a key feature of today’s shadow banking system.

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1 See Quinn & Roberds (2012).

**Shadow banking offers multiple benefits.** For example, concentration risk can be mitigated by spreading the risk across many parties. In addition, mismatches on the balance sheet – such as differing maturities and currencies – can be reduced through the improved matching of exposures and commitments. There is also more scope for specialisation and benefits of scale, because different institutions focus primarily on a specific part of the intermediation process.

**However, as the crisis has shown, this also gives rise to systemic risks.** The financial system has become less transparent due to the increased complexity of financial instruments and the large number of entities and jurisdictions involved. In addition, limited supervision and the absence of safety net schemes limit the opportunities to intervene, in turn making it difficult to prevent incidental problems from developing into a systemic crisis. Moreover, the shadow banking system has for a long time facilitated financial imbalances, such as the build-up of leverage in the financial system.

**Not surprisingly, shadow banking is high on the international policy agenda, with the Financial Stability Board (FSB) playing an important coordinating role.** A first objective is to obtain a clearer picture of the shadow banking system and the associated vulnerabilities, and to monitor the system. Efforts are also under way to make risks more manageable, for example by tightening up regulations for specific entities such as money market funds, or activities such as securitisation and securities lending. A great deal can also be achieved indirectly, for example by better protecting banks against risks in the shadow banking system through the existing supervision framework.

**This study describes the development of shadow banking, paying particular attention to the Netherlands.** According to the international statistics that are compiled annually by the FSB, the Netherlands is in the world top three in terms of total assets of non-bank financial institutions. This should however be seen as an upper limit of the shadow banking system which – at least for the Netherlands – considerably overstates its actual size. Taking the FSB approach as a starting point, this study sketches a more accurate picture of the size of the shadow banking system in the Netherlands. The next chapter looks in more detail in the definition of and forms taken by shadow banking. Chapter 3 then discusses developments in the Netherlands, and Chapter 4 addresses current policy initiatives.

### Key points:

- **The shadow banking system expanded strongly in the run-up to the crisis.** That growth has since slowed, especially as regards the volume of securitisations and structured products. By contrast, collateralised financial instruments have grown.
- **Although the Dutch shadow banking system is substantial, it is much smaller than the international statistics suggest.** Closer analysis reveals that the majority of 'Other Financial Intermediaries' in the Netherlands do not engage in financial intermediation.
- **It is however striking that the Netherlands is home to many non-bank financial institutions.** These include various structures that have tax-driven purposes.

## 2 What is shadow banking?

There is broad international consensus on the role shadow banking played in the financial crisis and on the need to improve the control of its resulting risks. However, it is not always clear precisely what constitutes the shadow banking system, and until recently there has been no uniform definition. This study takes as its starting point the FSB approach, based on a broad measure. This chapter explores this approach and discusses the main forms taken by the shadow banking system as well as the aspects that warrant attention.

### 2.1 Definition and measure

**The Financial Stability Board (FSB) defines shadow banking as ‘credit intermediation involving entities and activities outside the regular banking system.’<sup>1</sup>** Conceptually, there is a sharp distinction between shadow banking and ‘regular’ banking, in which banks raise funds principally from deposits and distribute that money in the form of loans. Banks fulfil an important role in society by bringing together demand for and supply of capital, effecting liquidity and maturity transformation and facilitating the payment system. Traditionally, these functions have lent themselves well to being combined within a single institution. Intermediation is generally a more efficient way of organising transactions – especially for households and small businesses – than a system in which borrowers and savers enter into transactions with each other directly. Banks are able to spread risks and make better judgments because they maintain long-term relationships with their customers and are able to invest in information-gathering.

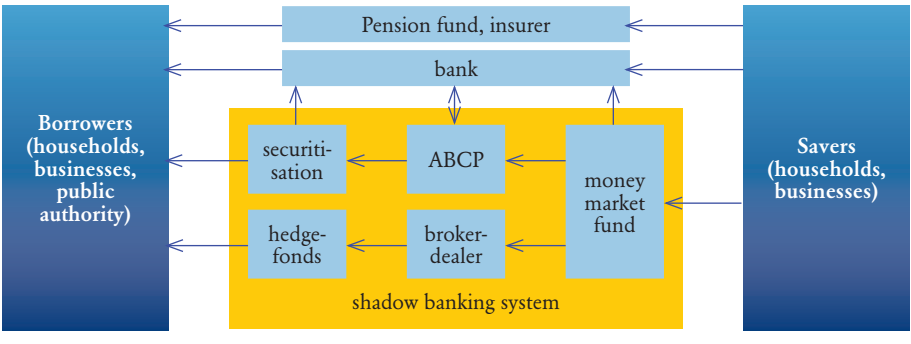
**Shadow banks have taken over a part of the intermediation process and operate largely alongside the traditional banking system (Figure 2.1).** Instead of intermediation within a single bank, several entities together constitute a chain in which credit, maturity and liquidity transformation takes place and which enables leverage. Various processes are carried out in the different links in the chain, such as securitisation and the bundling of specific risks in new financial products. Insurers and pension funds, which sometimes also extend loans or invest in credit products, are in principle not regarded as part of the shadow banking system.

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<sup>1</sup> See FSB (2011a).

**Figure 2.1 Shadow banking in the credit intermediation system**

The shadow banking system is highlighted in yellow.



Source: Turner (2012).

**An important difference compared with banks is that the shadow banking system is not directly supervised and is not covered by safety nets, such as central bank facilities and the deposit guarantee scheme.** In fact, this is partly the shadow banking system's rationale: since there are fewer restrictions, credit intermediation can be configured in a cost-effective way and can be tailored flexibly to the wishes of financial parties. This does not however mean that shadow banks are entirely exempt from supervision and regulation; for example, many shadow banking entities form part of a financial group, which is itself subject to supervision.

**The shadow banking system is difficult to capture in regular statistics.** It is not organised along national and sectoral lines and is constantly changing, while many entities are not required to report to the authorities. Moreover, some institutions can only partly be qualified as shadow banks, or it is not entirely clear to what extent they are involved in credit intermediation. Many special purpose vehicles, for example, are owned by banks and are included in the consolidation of the banking supervision statistics. Some hedge funds are active in the credit markets, whereas others are not. Private equity firms traditionally finance businesses by investing in them, but may in principle also engage in lending.

**The FSB therefore uses a broad criterion as its point of departure, namely 'Other Financial Intermediaries' (OFIs).** This sector includes all financial institutions except for banks, insurers and pension funds. The FSB has deliberately cast its net wide, and as a result this criterion in reality forms an upper limit to the shadow banking system. One advantage of the OFI statistics is their high degree of international consistency, which means they can be compared and aggregated across countries.

## Box 2 - Financial Stability Board monitoring framework

The FSB has developed a monitoring framework which analyses the shadow banking system in three steps, progressing from general to specific:<sup>1</sup>

1. *Mapping out the shadow banking system at macro-level.* This is done largely on the basis of regular statistics such as national accounts, monetary statistics and supervisory reports. The monitoring of subsets within the category 'Other Financial Intermediaries' is an example of this approach.
2. *Identifying aspects that are relevant for systemic risk and arbitrage opportunities.* The information gathered in step 1 can be used to zoom in on risks associated with credit, maturity and liquidity transformation and leverage. It is important not to view shadow banking entities in isolation here, but also to consider their position in relation to the rest of the credit chain. This brings to light new shadow banking entities and makes it possible to detect when activities are moved to other parts of the financial system.
3. *Identifying systemic risk and arbitrage opportunities.* This final step establishes in precisely which entities, markets or instruments the risks are located. This makes it possible to identify network relationships, for example, and to analyse the impact on other parts of the system if a shadow banking entity gets into difficulties.

The framework is based on a system-wide approach and identifies risks at regular intervals, but also takes into account country and sector-specific factors and shifts, for example due to financial innovation and arbitrage. It is essential that the authorities have sufficient powers to demand data – including from non-regulated entities – and are able to share these internationally.

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1 See FSB (2011a).

One disadvantage of the OFI measure is that it initially includes many institutions that are not actually shadow banks, and so produces a distorted picture. It is therefore important to carry out more in-depth analyses in order to define the shadow banking entities within the OFI sector more precisely (see Box 2). This is done for the Netherlands in the next chapter. To some extent this is also in line with alternative approaches in which shadow banking entities are identified 'bottom-up'; these approaches lead to lower estimates than the FSB criterion (see Box 3).

**Box 3 - Definition and size of the shadow banking system in the United States**

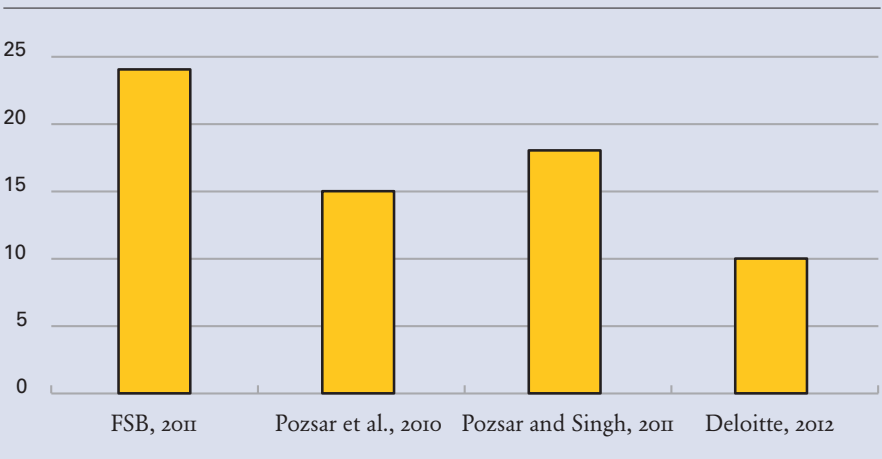
Several studies have estimated the size of the shadow banking system in the US. However, the findings of these studies vary considerably. This divergence is due not so much to differences of definition, but depends primarily on whether a broad or narrow approach is adopted in making the calculation.

The four studies shown below use more or less the same definition of shadow banking, though Pozsar et al. (2010) also link the shadow banking system to the absence of safety net schemes. Nonetheless, these four studies produce very different outcomes for the size of the US shadow banking system, ranging from USD 10 billion to USD 24 billion. The highest estimate is that by the FSB, which includes all financial entities that are not part of the regular system (the OFI sector). This is a clear and deliberate overestimation of the actual shadow banking system. The other studies adopt a ‘bottom-up’ approach to provide a summation of the relevant activities and entities.

The difference between the broad and narrow approaches also produces widely differing estimates for the Netherlands (see Chapter 3). The different outcomes highlight once again that the shadow banking system is a concept that can be defined clearly in theory but is much more difficult to pin down in practice.

**Estimated size of the shadow banking system in the US**

USD billion.



### Definitions of the shadow banking system

FSB, 2011	<i>'The system of credit intermediation that involves entities and activities outside the regular banking system'</i>
Pozsar et al., 2010	<i>'Shadow banks are financial intermediaries that conduct maturity, credit, and liquidity transformation without explicit access to central bank liquidity or public sector credit guarantees.'</i>
Pozsar and Singh, 2011	-
Deloitte, 2012	<i>'Shadow banking is a market-funded, credit intermediation system involving maturity and/or liquidity transformation through securitization and secured-funding mechanisms. It exists at least partly outside of the traditional banking system and does not have government guarantees in the form of insurance or access to the central bank.'</i>

## 2.2 Forms and risks

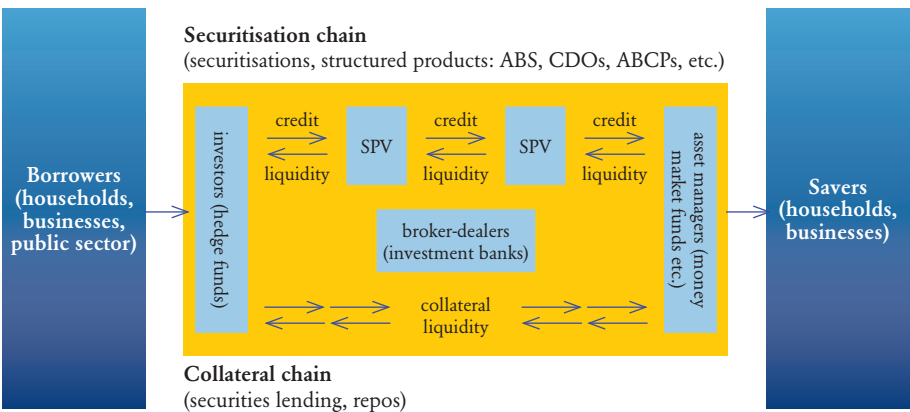
Figure 2.2 presents an analysis of the shadow banking system in which two key credit chains are visible: securitisations and collateralised transactions. The ultimate borrowers and savers are shown on the extreme left and extreme right, respectively. In principle, these are the same counterparties as those with which banks deal, such as businesses, households and institutional investors. However, where banks serve both sides directly, the intermediation function in the shadow banking system is split into different entities and instruments.

**Within the securitisation chain, loans – granted by banks or finance companies, for example – are rendered marketable and tailored to the needs of the client.<sup>2</sup>** They are then placed in 'special purpose vehicles' (SPVs), which are financed with asset backed securities (ABS).<sup>3</sup> Securitised loans can be sold and rebundled, with different processes being added. For example, asset backed commercial paper (ABCP) facilitates maturity transformation by financing long-term loans with short-term debt. Structured products are also created, whereby specific risks are linked facilitates to the financing instruments. The most important example of these products are collateralised debt obligations (CDOs), in which the obligations are spread across tranches which determine the order in which bondholders receive

<sup>2</sup> See Joint Forum (2009) for a detailed discussion of the financing vehicles referred to here.

<sup>3</sup> Specific forms of ABS are residential mortgage backed securities (RMBS) and commercial mortgage backed securities (CMBS).

Figure 2.2 Credit intermediation by shadow banks



Source: Claessens et al. (2012).

their investment back in the event of payment difficulties.<sup>4</sup> Investors in the highest-risk equity tranche are the first to bear the losses, and in return for accepting that risk receive a higher return.

**Markets in which lending is based on collateral (secured lending) played an essential role in the development of the shadow banking system in the run-up to the financial crisis.** Collateral reduces counterparty risk, enabling non-bank parties to enter into transactions that would otherwise be effected through banks, for example repo transactions and securities lending. Government bonds or shares may be used as collateral in these transactions, but so may securitised loans, for example. Use of collateral thus facilitates financial intermediation outside the banking system, with the security offered by the collateral forming a substitute for supervision and safety net schemes. The opportunities for this are exploited by using the same collateral several times over. One example is rehypothecation, in which institutions reuse the collateral received for loans they have granted to fund their own operations.

**Several types of players are involved in these processes, including investment banks, finance companies, money market funds, hedge funds, credit rating agencies and custodians.** These parties provide services such as development of the instruments mentioned above, or make use of the shadow banking system for their own activities. Some investors prefer to hold short-term claims in the shadow

<sup>4</sup> This form of credit enhancement of the higher tranches also occurs with other variants of ABS. A key feature of CDOs is that they often comprise a relatively limited but heterogeneous group of loans (such as specific business loans and loans with high leverage), whereas other ABS generally comprise a large, homogenous group of loans (such as mortgages).

banking system – for example with a money market fund – rather than with a bank, because this generates a more attractive risk/return ratio.<sup>5</sup> Broker-dealers play an important facilitating role in the development of instruments and the conclusion of transactions, either on behalf of other parties – investors, banks and shadow banks – or for their own account. The most important broker-dealers are part of a limited number of large international banks.<sup>6</sup>

**The shadow banking system offers ample opportunities for spreading risks and creating investment vehicles that are tailored to the wishes of market parties.** Elements can be added, such as accepting or hedging certain market risks (e.g. currency risk) and other combinations of structured products (CDO-squared). Structures can also be configured that combine these advantages with regulatory arbitrage and tax planning. This latter aspect is an important function of Special Financial Institutions (SFIs) (*Bijzondere Financiële Instellingen*). Although they are part of foreign multinationals, SFIs are often based in the Netherlands for tax planning purposes (see Chapter 3).

**But the crisis has shown that vulnerabilities and systemic risks have also built up through the shadow banking system:**

- **The complexity of the financial system has increased greatly**, causing the actual underlying risks to become obscured. Those risks may stem from the complexity of structured products, but also from sophisticated constructions designed to hedge interest rate or currency risks, for example.
- **The intensive use of collateral in repo and securities lending transactions has increased interconnectedness.** For example, the reuse of collateral creates a chain of dependencies between market parties. Moreover, the strong dominance of a limited number of large broker-dealers creates a concentration risk. Finally, the use of collateral can reinforce procyclicality of the system, because the collateral requirements increase when market conditions deteriorate, making it more difficult for counterparties to raise finance.<sup>7</sup>
- **Risks in the shadow banking system can spread to regular banks**, which are linked to shadow banks in several ways, for example as owners or providers of credit lines. Some banks are moreover dependent on the shadow banking system for their own funding requirements. For example, Dutch banks resort to the financial markets to finance their loan portfolios, as the volume of Dutch savings is too small to meet traditional mortgage funding. Securitisation is an

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5 Poszar (2011) shows that it is not attractive for US institutional investors to hold all their liquid claims with banks because those claims are only partially covered by the deposit guarantee scheme. As a result, alternatives such as money market funds and securities lending are more attractive options.

6 Claessens et al. (2012) cite the following as the most important dealers: Goldman Sachs, Morgan Stanley, JP Morgan, Bank of America-Merill Lynch, Citibank, Barclays, BNP Paribas, Credit Suisse, Deutsche Bank, HSBC, RBS, Société Generale, Nomura and UBS. These have all but one (Nomura) been classified by the FSB as global systemically important banks (FSB, 2010d).

7 See CGFS (2010) for a description of this procyclicality in financial transactions involving collateral.

#### Box 4 - Lehman Brothers' shadow banking activities in the Netherlands

The failure of the investment bank Lehman Brothers in 2008 is an example of the complexity in the shadow banking system. The US parent company, Lehman Brothers Holdings, Inc., had specialist subsidiaries in many jurisdictions. The (sub-)subsidiary Lehman Brothers Treasury Co. B.V. (LBT) was active in the Netherlands, with a balance sheet total of more than USD 34 billion – at a time when, according to the most recent financial statements, LBT's capital and reserves amounted to less than USD 80 million.

LBT issued structured loans that were used exclusively to finance the rest of the Lehman Brothers group. These structured notes were placed (principally) with professional investors. For these two reasons, LBT fell within the scope of the exception clause in the Dutch Financial Supervision Act (*Wet op het financieel toezicht*) and was therefore not subject to supervision in the Netherlands, though indirectly LBT did come under supervision via its parent company. LBT was established in the Netherlands primarily for tax reasons, and only on paper: the actual business operations were carried out from London.

Not only did the different group entities rely on each other for funding, they also engaged in mutual derivatives transactions (in the form of hedges). It was not until the collapse of Lehman Brothers that it became clear just how complicated and strongly interconnected the different entities were. Receivers in many jurisdictions are still studying the failure of the concern. It is no surprise that calls are currently being made for more international collaboration in the area of supervision and for better ways of winding up major financial institutions.

important tool here, enabling loans to be sold or used as collateral for alternative financing structures.<sup>8</sup>

- **Unlike the regular banking system, it is difficult for the authorities to intervene in shadow banks**, because they do not fall under the supervisory regime – or only indirectly, via their parent company – and do not have access to central bank credit facilities. Moreover, the shadow banking system is highly internationalised, which also limits the ability to control it. A clear example of this are the SFIs referred to above. Particularly where these entities are part of financial groups, this can complicate matters in a crisis situation and therefore exacerbate systemic risk, as the experience of Lehman Brothers shows (Box 4).

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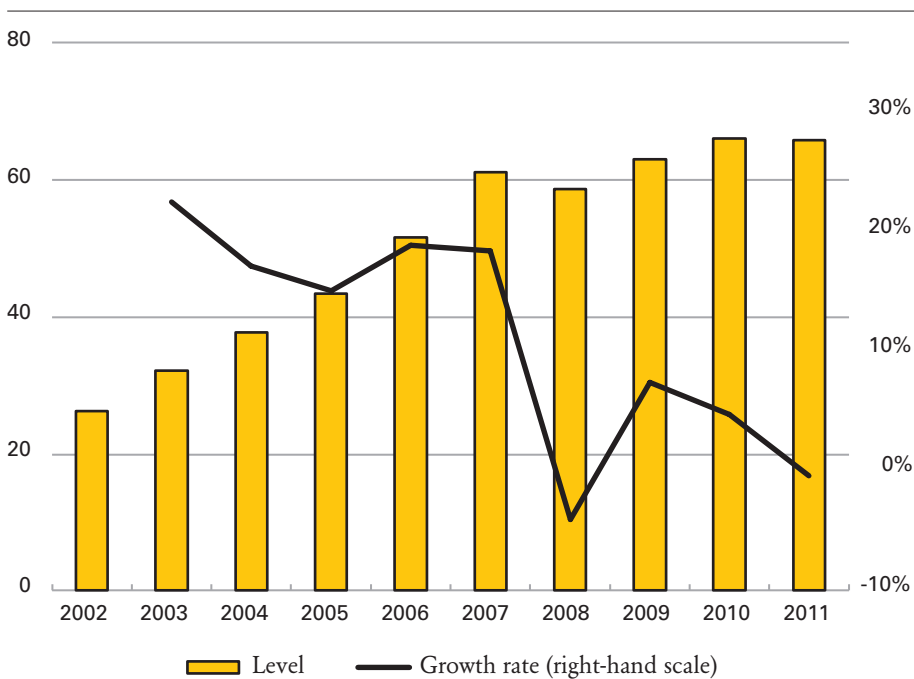
<sup>8</sup> See DNB (2012a).

### 2.3 Size and development of the global shadow banking system <sup>9</sup>

**In the run-up to the financial crisis, the global OFI sector doubled in size within five years (Chart 2.1).** This growth was due among other things to a sharp increase in synthetic financial products. In a period when government bond yields were on a steady downward trend, investors began looking for safe assets which offered higher returns (the ‘search for yield’ effect). Structured products, in particular, really took off in this period because they were regarded – to some extent erroneously, as it later turned out – as products that combined attractive returns with acceptable risk. After the onset of the crisis in 2007, the growth in the OFI sector came to a halt. **At the global level, large parts of the OFI sector are not adequately mapped in terms of activities or entities (Chart 2.2).** This underlines the importance of a deeper analysis – as in Chapter 3 for the Netherlands – to obtain a clearer picture of the extent to which these entities genuinely form part of the shadow banking system.

**Chart 2.1 Development of global OFI sector**

USD trillion and percentages.



Source: FSB.

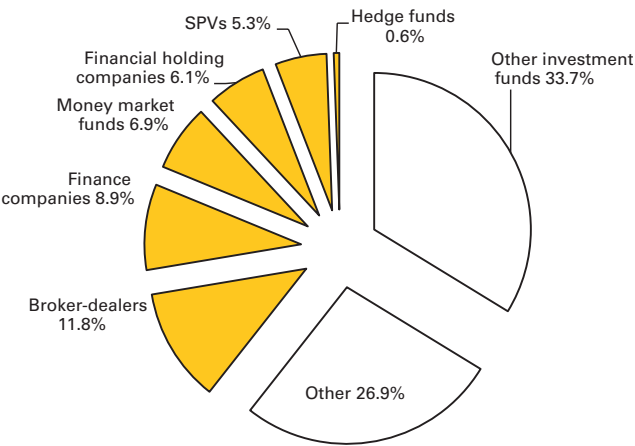
<sup>9</sup> See DNB (2012a).

Substantial sectoral shifts have taken place since the start of the financial crisis (Chart 2.3). The share of money market funds and special purpose vehicles has shrunk greatly, a reduction mirrored by an increase in broker-dealers. This is in line with other analyses, which conclude that the securitisation market has largely ground to a halt, while collateral-based transactions are becoming ever more important.<sup>10</sup> In other words: a shift is taking place within the shadow banking system away from securitisation and towards the collateral chain, as shown in Figure 2.2. The shift towards secured transactions in fact reflects a broader trend, which is also taking place outside the shadow banking system and which is related to changing risk perception as a result of the financial crisis. The shrinkage of money market funds can be attributed in part to the low money market interest rates and tighter regulations, which have put pressure on the business model of these institutions.

Finally, Chart 2.4 shows that the global OFI sector is largely concentrated in the US, but also that a substantial proportion is based in the Netherlands. In terms of balance sheet total, the Netherlands is actually the third largest country for OFIs, after the US and the UK. The next chapter looks more closely at the extent to which Dutch OFIs can indeed be classified as shadow banks.

**Chart 2.2 Many OFI categories unknown**

Percentages of balance sheet total, 2011.

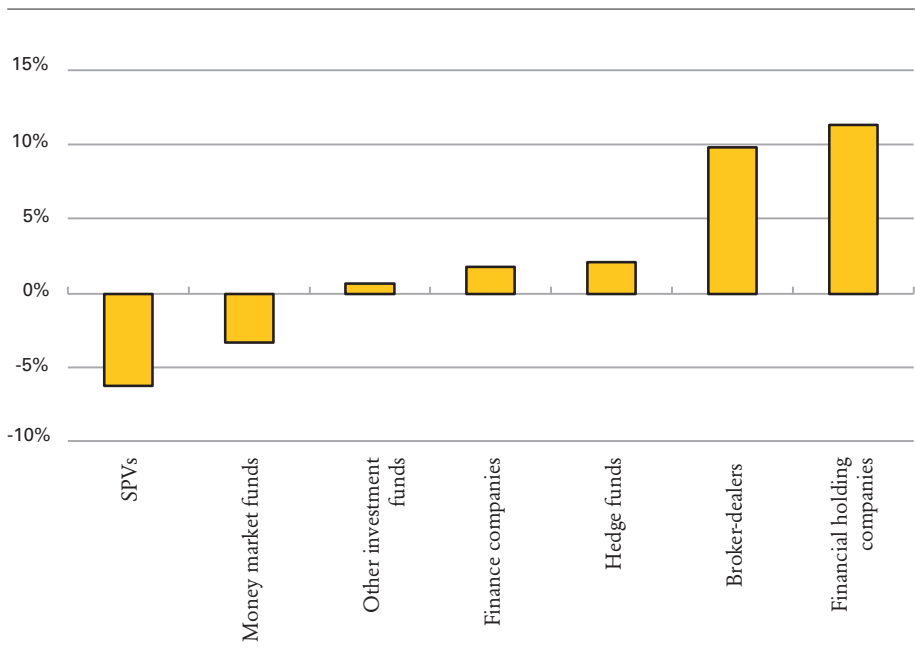


Source: FSB.

<sup>10</sup> See Joint Forum (2009), Claessens et al. (2012). Some high-risk securitisation constructions, such as structured investment vehicles (SIVs), have almost disappeared.

**Chart 2.3 Shifts within OFI sector**

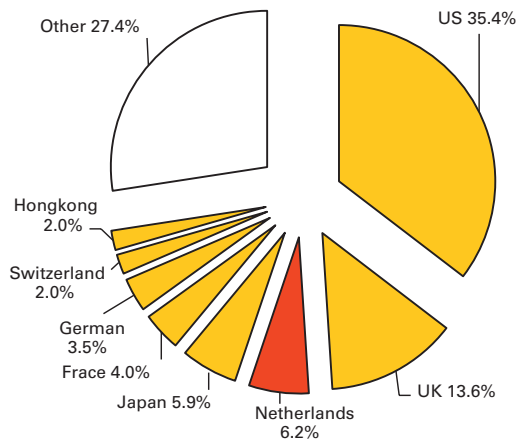
Average annual growth rate 2007-2011.



Source: FSB.

**Chart 2.4 Relatively large OFI sector in the Netherlands**

Percentages of balance sheet total, 2011.



Source: FSB.

### 3 Shadow banking in the Netherlands

According to the broad FSB monitoring approach ('casting the net wide'), more than six percent of the global shadow banking system was based in the Netherlands in 2011. As indicated in the previous chapter, this measure should be regarded as an upper limit, comprising the 'Other Financial Intermediaries' (OFI) sector. This sector includes all financial institutions with the exception of banks, insurers and pension funds. The large size of this sector in the Netherlands is due chiefly to the large number of Special Financial Institutions (SFIs). This chapter looks in more depth at the Dutch figures and estimates the degree of shadow banking in each subcategory.

#### 3.1 Shadow banking according to the FSB measure

**The Dutch OFI sector is substantial and continued to grow after the onset of the financial crisis.** As a result, the Netherlands accounts for approximately twenty percent of the OFI sector within the euro area (see Annex 1) and is among the top three countries in the world.<sup>11, 12</sup> **The FSB criterion is however a rough indicator and should be seen primarily as an upper limit of the shadow banking system.** Much of the OFI sector has little to do with credit intermediation, and where it does, many of the institutions concerned are subject to financial supervision, usually indirectly. This means that not all categories are equally relevant for the shadow banking system. Table 3.1 presents a number of considerations for classifying OFIs, the most decisive criteria being that the institutions concerned should form part of the financial system and play a role in the credit intermediation process.

**Based on these considerations, the following categories are the most relevant from a shadow banking perspective:**

- *Special Financial Institutions* (SFIs) stand out particularly, because they account for approximately two-thirds of the Dutch OFI sector. Three-quarters of these entities are not classified as shadow banks because they are not associated with a

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<sup>11</sup> The figures presented here are taken from the financial accounts. These deviate from the microprudential data that are used for banking supervision. The main reason for this is the more limited consolidation group in the financial accounts; as a result, foreign subsidiaries, non-banking domestic subsidiaries and special purpose vehicles are not included in the banking figures.

<sup>12</sup> See ECB (2012) for a description of the shadow banking system in the euro area as a whole.

**Table 3.1 Shadow banking characteristics of Other Financial Intermediaries in the Netherlands**

Provisional data, year-end 2011.

Subcategory	(Part of) Finance companies	Credit inter-mediation	Supervision/ safety nets	Size (EUR billion)	Shadow banking content
Special Financial Institutions					
Financial BFI	Yes	Partial	Indirect	500*	Substantial
Non-financial SFI	No	No	No	1500*	Low
Special purpose vehicles	Yes	Yes	Indirect	330	Very high
Money market funds	Yes	Yes	No	2	Very high
Finance companies	Yes	Yes	No	128	Substantial
Hedge funds	Yes	Partial	No	18	Substantial
Private equity firms	Yes	No	No	25	Moderate
Collective investment schemes	Yes	No	No	340	Low
Investment firms	Yes	No	Yes	91	Moderate
Financial holding companies	Yes	No	Yes	184	Low
Other	Yes	No	No	14	Low

\* Estimate based on data from 2010. The provisional total figure published by Statistics Netherlands (CBS) for 2011 is EUR 2,028 billion.

Sources: DNB, Statistics Netherlands.

financial enterprise. The remainder are classified as ‘financial SFIs’ and together have a substantial balance sheet total of approximately EUR 500 billion. The following section looks at this in more detail.

- Securitisation vehicles or *Special Purpose Vehicles* (SPVs) are also a large category within the Dutch OFI sector, with a balance sheet total of EUR 330 billion. In principle, SPVs form part of the shadow banking system because they are separate entities that provide maturity and liquidity transformation within the credit chain, whilst reducing the solvency requirements for the lender by transferring risk to other parties. Dutch SPVs consist mainly of securitised residential mortgages.<sup>13</sup> The vast majority are operated by banks (including their non-banking subsidiaries), which still hold two-thirds of securitisations.<sup>14, 15</sup>

<sup>13</sup> This contrasts with the Special Purpose Vehicles which form part of the SFI sector (see next section) and which consist almost exclusively of foreign paper.

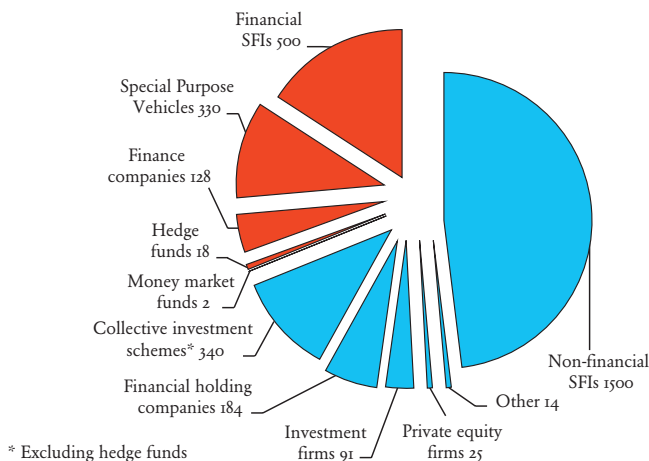
<sup>14</sup> Special Purpose Vehicles are recorded in different ways in the various statistics. In the financial accounts they form part of the OFI sector; in monetary statistics (monetary financial institutions) they are generally left out of consideration; and in the prudential statistics (supervision) they are largely consolidated with the banks.

<sup>15</sup> See DNB (2012b)

- *Money market funds* are perhaps the best example of shadow banking because of their very clear maturity transformation activities. They finance their activities with short-term liabilities and invest these funds in money market paper and short-dated bonds. The balance sheet total of money market funds established in the Netherlands is extremely small, at EUR 2 billion.
- *Finance companies* engage in a wide array of lending activities, including consumer credit and mortgages. Finance lease companies, factoring firms and municipal finance companies also fall into this category. They are significant players in the Dutch market, with a combined balance sheet total of EUR 128 billion.<sup>16</sup> Many of these firms are owned by mainstream Dutch and foreign financial institutions, especially banks.
- *Hedge funds* are a relatively small category in the Netherlands, with a balance sheet total of EUR 18 billion.<sup>17</sup> From a shadow banking perspective, hedge funds that invest in loans are particularly relevant. Many Dutch hedge funds are ‘funds of funds’, with a diversity of investments in other hedge funds; they may therefore have indirect investments in loans, but we have only very limited information about this.

### Chart 3.1 Analysis of Other Financial Intermediaries

Balance sheet totals x EUR billion, year-end 2011. Areas coloured red have a relatively high shadow banking content



Sources: DNB, Statistics Netherlands.

<sup>16</sup> No separate statistics are available for finance companies. The figures have been derived indirectly by deducting the other OFI subcategories from the total of all OFIs.

<sup>17</sup> See DNB (2012c) for a recent analysis of Dutch hedge funds.

**The shadow banking content of the other parts of the OFI is moderate to low:**

- *Private equity firms* invest in (mainly unlisted) companies and in this sense provide finance.<sup>18</sup> Traditionally this is not debt finance, and these entities are therefore not regarded as shadow banks. Nonetheless, it is perfectly feasible that, in the light of the stricter regulation of banks, they will play a bigger role in credit intermediation in the future. In addition, they can increase the financial leverage in the system and spread or reinforce risks.
- *Collective investment schemes* (excluding hedge funds) are investment trust companies (with legal personality) and investment funds (without legal personality) that issue shares/units and undertake collective investments. They do not engage in credit intermediation and are therefore not classified as part of the shadow banking system. Nonetheless, these collective investment schemes can also give rise to leverage, for example by issuing loans or taking positions in derivatives.
- *Investment firms* are securities brokers and asset managers. Because they do not engage in credit intermediation, they have virtually no relevance from a shadow banking perspective. If they do engage in credit intermediation (and therefore in lending), they require a banking licence and are classified as banks. However, some investment firms are permitted to take positions for their own account and are therefore exposed to trading risks. They also play a facilitating role as broker-dealers, but this constitutes only part of their activities.
- *Financial holding companies* conduct the management of a group of subsidiaries. Their assets consist mainly of participating interests in and loans to other group entities, especially banks and insurers established in the Netherlands which are included in the consolidated supervision. In practice, therefore, they form part of the regular Dutch banking and insurance system.
- *Other entities* include various financial support firms such as advisors, intermediaries, custodians and stock exchanges. They play an important service-provision role but do not themselves engage in financial intermediation.

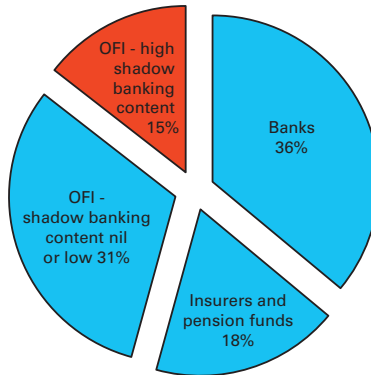
All in all, the picture that emerges of the Dutch OFI sector is a mixed one, with parts of some subcategories having characteristics of shadow banks. The main distinguishing feature is whether entities play a role in credit intermediation. **If only the parts of the OFI sector that score ‘substantial’ or ‘very high’ in Table 3.1 are included, the size of the shadow banking system falls by two-thirds.** To around EUR 1,000 billion (Chart 3.1). This would equate to roughly 15 percent of the total Dutch financial sector. Measured according to this criterion, the Dutch shadow banking system is much smaller than the mainstream banking

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<sup>18</sup> So-called development companies (*Ontwikkelingsmaatschappijen*) that are largely in the hands of the public authorities are also included here.

### Chart 3.2 Size of Dutch financial sectors

Balance sheet percentages, 2011



Sources: DNB, Statistics Netherlands.

system (Chart 3.2). On the other hand, this would still make the Netherlands one of the major shadow banking countries.<sup>19</sup>

#### 3.2 Special Financial Institutions (SFIs)

**As the largest category within the OFI sector, SFIs are the main reason for the high international score the Netherlands achieves in comparative shadow banking statistics.** The combined balance sheet total of these institutions has risen steadily to more than EUR 2,500 billion over recent years, which is comparable with the total Dutch banking system (Chart 3.3).<sup>20</sup> SFIs are owned by foreign multinationals, which use them to channel financial flows between group entities via the Netherlands.<sup>21</sup> SFIs are not a new phenomenon; they have been designated as a special category since the early 1980s, but have grown enormously, especially in

<sup>19</sup> The Netherlands would come in sixth place, with one third of the balance sheet total of the OFI sector. No allowance is made here for the fact that the OFI criterion (Chart 2.4) is also an upper limit for the other countries.

<sup>20</sup> These balance sheet totals of SFIs are taken directly from DNB reports and are somewhat higher than those shown in the financial accounts of Statistics Netherlands, which are used to determine the size of the OFI sector. The pattern is the same in both sources.

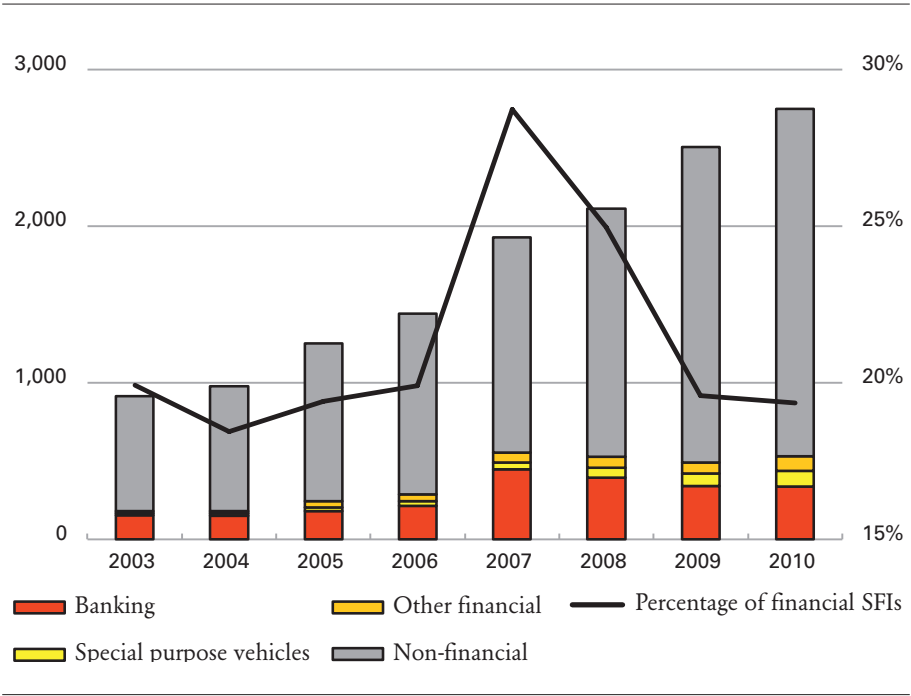
<sup>21</sup> Statistics Netherlands and DNB use a joint definition for classifying entities as SFIs. This definition is incorporated in a decision tree that is used to establish whether an entity has SFI status. The criteria include whether the entity is domiciled in the Netherlands, has a predominantly foreign shareholder base and has a balance sheet consisting primarily of channelled funds. The Dutch SFI definition is aligned with the OECD definition of 'Special Purpose Entity' (2008). See also DNB (2008) for a more detailed description.

the last decade.<sup>22</sup> Most SFIs are classified as holding companies or (group) finance companies (Box 5). These group finance companies do not require a banking licence from DNB to raise money from the public, provided they meet strict conditions.<sup>23</sup> A group finance company must raise money by issuing securities, must have a guarantee issued by its parent company (which must have positive equity) and must invest at least 95 percent of the funds raised within the group to which it belongs.

**Key motives for SFIs to establish in the Netherlands are the tax planning opportunities and the highly developed financial services sector.** The latter includes not only banking and legal expertise, but also the trust sector, which supports a high proportion of SFIs. There are several factors which make the Nether-

**Chart 3.3 Development of SFI sector**

EUR billion.



Source: DNB.

<sup>22</sup> The SFIs are a product of the former policy of capital and credit restrictions pursued by DNB to control the money supply. Foreign multinationals whose assets and liabilities were situated entirely abroad had no influence on the Dutch money supply and were therefore exempted from these restrictions. This was formalised in 1983 by the introduction of SFI status. See DNB (2000) for a discussion of the emergence of SFIs.

<sup>23</sup> For the most recent and complete version of these requirements, reference is made to the Dutch Financial Supervision Act (Wft).

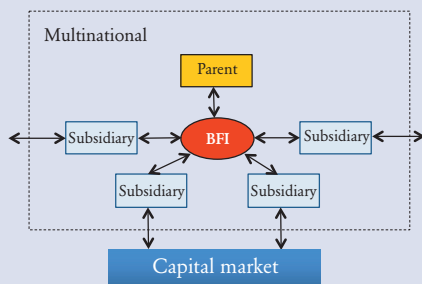
### Box 5 - Holding company versus finance company

Most SFI's can be subdivided into holding companies and (group) finance companies. Holding companies organise capital flows between different group entities. For example, an oil company from country X may decide for tax reasons that a loan to one of its subsidiaries in country Y should be channelled via a Dutch SFI. By contrast, the main task of finance companies is to raise capital for the parent group. In the example of the oil company, a Dutch SFI may issue bonds in order to raise capital to finance a project in country Z.

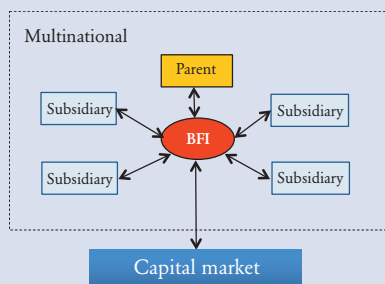
In this study, SFI's are regarded as finance companies if they raise more than ten percent of their funds from outside the group; the remainder are deemed to be holding companies. This distinction is quite robust for alternative cut-off points, since most SFI's are financed either almost entirely internally or almost entirely externally (Annex 3).

In addition to this twofold division, there are also specific types of SFI. One special segment of the non-financial SFI sector comprises royalty and licensing companies which manage intellectual property, and some lease and re-invoicing companies. There are only a limited number of such institutions, and they are left out of consideration in this study. Special purpose vehicles constitute a specific category of financial SFI's, since these entities are deliberately placed at a distance from the parent company ('bankruptcy remote'). Securitisations are an important part of the shadow banking system.

#### Holding company



#### (Group) finance company



lands an attractive country from a tax perspective. It has an extensive network of high-quality tax treaties with other countries, an important factor for multinationals in avoiding double taxation. In addition, the Dutch tax authorities are willing to provide certainty in advance about the tax treatment of transactions and structures through ‘advance tax rulings’. This increases the transparency between the parties involved. Finally, the Netherlands operates a participation exemption, in which results obtained from participating interests are exempt under certain conditions from corporation tax, and withholding tax is not levied on interest and royalty income.

**Most foreign multinationals have at least one SFI in the Netherlands.**<sup>24</sup> In total, the sector comprises around 14 thousand entities, which are generally run from a foreign head office and have virtually no physical presence in the Netherlands. The direct relevance of these entities for the Dutch economy is therefore limited, although the sector does provide additional employment in the business services sector.<sup>25</sup> Some multinationals have also relocated a part of their activities to the Netherlands, for example by setting up their head office there.

**The lion’s share of SFIs are part of non-financial groups,** such as oil companies, telecom companies or pharmaceutical firms. Roughly a quarter are associated with financial institutions. These ‘financial SFIs’ can play a role in the financial intermediation process and are therefore the most relevant entities from a shadow banking perspective. Their relative share grew just before the financial crisis, but has declined again since the number of non-financial SFIs has continued to grow in recent years.

**SFIs are important hubs for international capital flows, which is for instance reflected in the Dutch balance of payment figures.** They account for roughly half of the Dutch gross international position (Chart 3.4) and also have a substantial impact on the inflows and outflows on the current account. As the Netherlands is used primarily as a hub, these sizeable gross positions and flows largely cancel each other out, so that the net effect is very limited.

Table 3.2 looks in more detail at how countries are interconnected via the SFI balance sheets. The financing per country is analysed for each SFI in proportion to the investments in each country on the asset side of the balance sheet. There is a striking concentration in large economies and jurisdictions which are recognised as offshore centres. The Netherlands also appears to have a prominent position, but

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<sup>24</sup> This is revealed by a comparison with international rankings such as the Fortune 500, in which the largest companies are ranked on the basis of annual turnover. The majority of the hundred biggest companies in the world are represented in the Netherlands by one or more SFIs.

<sup>25</sup> The trust sector, which provides important support for SFIs, provides several thousand high-grade jobs; if other financial service-providers are also included, the number of jobs rises to tens of thousands. In addition, there are indirect effects on sectors such as transport and the hotel and catering industry, but these are difficult to quantify. See SEO (2008, 2011).

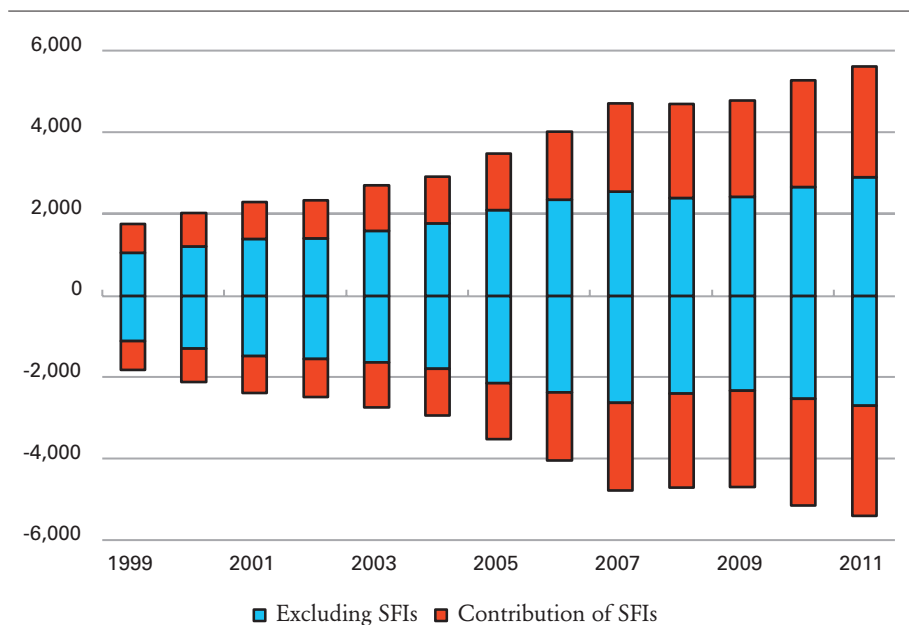
this relates mainly to intragroup exposures, which effectively cancel each other out. This confirms that the SFI sector is active mainly *from* the Netherlands and plays only a limited role in the Dutch domestic economy.

The table shows that the financing of SFIs is more concentrated than their exposures: on average, their assets are spread over far more countries than their liabilities. This is because SFIs often have global activities as holders of operating companies (assets), whereas the financing is linked to the parent company (liabilities). In the case of SFI finance companies, financing appears to be concentrated in the principal global capital markets.<sup>26</sup> Annex 2 contains a more detailed analysis of the top 20 countries, for both financial and non-financial SFIs.

The Netherlands often serves as a link in a longer chain. For example, most of the financing from a country such as Luxembourg will in turn come from a different country. Moreover, jurisdictions are interconnected in more ways than purely through financial investments. Many financing structures channelled via Dutch

### Chart 3.4 SFIs double gross external assets

External assets in the Netherlands, assets and liabilities (EUR billion).



Source: DNB.

<sup>26</sup> The holder of issued securities – around 15 percent of the liabilities – is in principle unknown; in that case, the place of establishment of the custodian is reported as the country.

**Table 3.2 Links between top 10 countries via financial SFIs**

Note: links between country breakdowns by assets (horizontal) and financing (vertical). Financial SFIs excluding Special Purpose Vehicles, 2010.

		Exposures in ...										
Financing from ...		UK	Luxembourg	Netherlands	US	Germany	Belgium	Hong Kong	France	Italy	Switzerland	
	UK	22,5	0,7	7,6	1,4	1,2	0,4	41,0	0,2	0,5	9,8	85
	Luxembourg	20,1	23,1	1,1	5,6	4,1	36,1	2,2	4,3	7,8	0,3	104
	Netherlands	5,0	2,0	14,9	12,1	8,4	0,2	0,2	6,3	10,1	3,8	63
	US	3,3	0,7	4,8	21,7	0,3	3,4	0,0	0,8	0,2	0,2	35
	Germany	0,5	0,2	30,0	0,3	0,7	0,0	0,0	10,4	0,2	2,0	44
	Belgium	3,6	0,0	0,0	2,1	0,1	2,3	0,0	1,1	0,1	0,1	9
	Hong Kong	1,4	1,1	0,0	0,3	0,0	0,0	0,4	0,1	0,2	0,0	3
	France	0,2	2,3	0,1	0,1	2,1	0,2	0,1	2,6	0,2	1,0	9
	Italy	0,0	3,6	2,9	0,0	0,5	0,1	0,2	1,1	2,3	2,6	13
	Switzerland	0,8	0,0	0,1	0,4	0,0	3,3	0,0	1,0	0,4	0,0	6
		57	34	62	44	17	46	44	28	22	20	373

Source: DNB.

SFIs are for example listed in Ireland, even though that country plays only a limited role in the financial positions.<sup>27</sup>

As stated earlier, around three-quarters of entities in the SFI sector are part of non-financial multinationals. This means that by definition they do not qualify as shadow banks: they are not involved in financial intermediation, let alone credit intermediation, outside their group of non-financial enterprises. The focus in this section is therefore primarily on financial SFIs, which can operate de facto as banks or build up financial stability risks because of their links to banks or related financial institutions.

Based on balance sheet ratios, finance companies have more bank-specific characteristics than holding companies. Table 3.3 presents average balance sheet ratios of SFIs, analysed by holding and finance companies (see Box 5).<sup>28</sup> By defi-

<sup>27</sup> An important reason for this is that the Irish authorities appraise prospectuses within a very short space of time.

<sup>28</sup> The distinction between the two categories is based on the percentage of external financing: if this amounts to more than 10 percent, the SFI is classified as a finance company; otherwise it is deemed to be a holding company.

nition, finance companies fund themselves externally, which is used by financial SFIs in particular to contribute to financial intermediation by the parent company. Moreover, they have greater leverage on average than holding companies and a large part of both their exposures and their obligations consists of loans. On average, the degree of short-term financing and maturity transformation is limited in all categories.

It should be borne in mind that these figures are averages, and that the spread between SFIs is sometimes considerable (see Annex 3). In most cases, the degree of external finance is either almost zero or almost 100 percent, in line with the distinction between finance and holding companies. The equity position also varies widely: more than half of the financial SFIs hold virtually no equity

**Not only bank-specific characteristics are relevant from a broader perspective of financial stability, but also the size of an SFI and the degree to which the chosen structure can be a complicating factor in crisis situations.** The balance sheet totals of SFIs vary widely, and some companies also have a large number of SFIs. In 2010, one non-financial enterprise had more than thirty reporting SFIs in the Netherlands, with a combined balance sheet total of EUR 163 billion.<sup>29</sup> There is a fairly high degree of concentration of financial SFIs, with the 15 biggest entities –

**Table 3.3 Balance sheet structure indicators**

Averages over all SFIs concerned, 2010; numbers and percentages of balance sheet total

	Number	External finance	Short- term finance	Maturity trans- formation	Equity	Credit assets	Credit liabilities
<b>Finance company</b>							
Non-financial SFIs	210	59.3%	18.2%	1.4%	25.1%	60.7%	70.8%
Financial SFIs	58	74.9%	14.3%	-2.7%	24.2%	61.0%	74.3%
<b>Holding company</b>							
Non-financial SFIs	973	0.4%	11.7%	0.2%	71.1%	29.1%	25.7%
Financial SFIs	156	0.5%	14.1%	7.3%	65.8%	50.0%	35.1%

Note: external finance is the percentage of finance raised outside the group. Short-term finance has a term of less than one year. Maturity transformation is the percentage of short-term exposures less the percentage of short-term commitments. Credit assets and liabilities are exposures and commitments, respectively, consisting of credits and deposits.

<sup>29</sup> This balance sheet total excludes mutual exposures of these SFIs; if these are included, the balance sheet total rises to more than EUR 400 billion.

mainly banks – having a combined balance sheet total of EUR 300 billion, roughly two-thirds of the total.

**The relevance of the position of an SFI within the group as a whole during a crisis is illustrated by the collapse of the American investment bank Lehman Brothers in 2008.** The bank had a Dutch SFI that raised external finance for the group and failed along with the parent company (see Box 4). Settlement of this bankruptcy has proven to be particularly complicated, partly because of the complex structure of this bank, of which the Dutch SFI subsidiary was only one of the manifestations.

**Finally, special purpose vehicles play a role that deviates from the main distinction between holding and finance companies within SFIs.** At the end of 2011, the balance sheet total of SFI special purpose vehicles amounted to EUR 93 billion. These vehicles are generally deliberately configured as ‘bankruptcy remote’ entities and in that sense are more standalone than other SFIs, which fulfil an important role for other group entities. Despite this, SFI special purpose vehicles are absolutely relevant for the shadow banking system. Unlike the ‘Dutch’ SPVs included directly in the OFI figures in the previous section (Chart 3.1), these vehicles principally engage in the securitisation of foreign assets administered by foreign parties. A high proportion of them consist of collateralised debt obligations (CDOs), which are used to create structured credit products (Chart 3.5).

**All in all, the conclusion is that the vast majority of SFIs do not form part of the shadow banking system, but are nonetheless a relevant phenomenon.** These non-financial SFIs continued to grow strongly during the crisis. This may be related to the reduced availability of credit, incentivising companies to focus more on direct financing via the public capital market.<sup>30</sup> These are mostly large, established companies with a sufficient track record to gain access to capital markets and are therefore less dependent on banks.

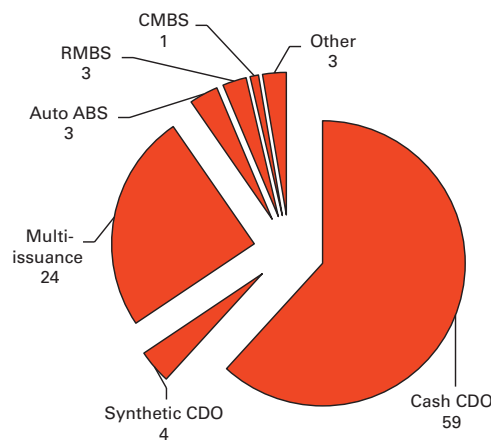
**Financial SFIs can however to a large extent be linked to shadow banking.** This is most evident for SFI special purpose vehicles, which consist largely of structured credit products. Other financial SFIs fulfil a similar function to that of non-financial SFIs as holding or finance companies, though a key difference is that in doing so, financial SFIs form part of the financial intermediation process, with the channelling of funds via the Netherlands clearly being a construction that falls outside the regular banking system.

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<sup>30</sup> This substitution effect is also found in international statistics; see ECB (2011) for a description of financing patterns of European non-financial enterprises.

Chart 3.5 Composition of SFI Special Purpose Vehicles

EUR billions, 2011.



Source: DNB.

## 4 Policy initiatives aimed at shadow banking

Policymakers want to strengthen their grip on the risks associated with shadow banking. This chapter discusses a number of recent initiatives and takes a brief look at the potential consequences of new regulations for the shadow banking system in the future.

### 4.1 Global and European policy initiatives

In 2010, the leaders of the G20 countries asked the FSB to produce recommendations for strengthening the regulation of the shadow banking system.<sup>31</sup> **Tighter supervision and regulation is a logical step in seeking to mitigate the risks of shadow banking, but this also creates a number of complications:**

- *Supervision and regulation are themselves drivers of shadow banking.* Making them stricter can therefore be counter-productive if activities are simply relocated and become (even) less transparent. There are numerous historical examples of this, such as the rise of the euro currency market and financial structures designed to circumvent capital and credit restrictions (see Box 1).
- *Shadow banking is a global and cross-sector phenomenon,* making it more difficult to control. Harmonisation between authorities is of crucial importance to formulate effective policy. The coordinating role of the FSB and the involvement of the principal standard-setting agencies is intended to help ensure that the ultimate policy decisions by national authorities are consistent.
- *The shadow banking system is non-transparent and complex,* which means there is often no obvious avenue for policy intervention. This is partly related to the previous point, but also to the complexity of the financial structures that constitute the shadow banking system.
- *The shadow banking system also has positive aspects.* It provides alternative sources of liquidity and funding and offers opportunities for specialisation and spreading risk. Tightening up regulations could cancel out these advantages.

**It is therefore important to pay more attention than usual to potential unintended consequences of regulations, and to make adjustments where necessary.** It is key to determine where regulations can have most effect. Sometimes it is best to

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<sup>31</sup> See G20 (2010).

intervene in the shadow banks themselves (e.g. money market funds); at other times it is better to intervene indirectly through supervised institutions (such as banks). Policy can also be formulated for specific markets or activities (as with securities lending).

**The FSB identified five focus areas in 2011 where consideration is being given to tighten regulation:**<sup>32</sup> (1) interaction with the banking sector; (2) money market funds; (3) other shadow banking entities; (4) securitisation; and (5) securities lending and repo transactions.

*(1) Interaction with the banking sector*

The FSB put forward proposals intended to provide better protection for banks against the risks of the shadow banking system. In the first place, it is important that shadow banking entities are included in the consolidation for solvency and liquidity supervision. It is also important to examine the extent to which stricter limits are needed for bank exposures to shadow banking entities. Consideration could be given to raising the capital requirements for specific categories, such as investments in high-risk funds and credit facilities. Restrictions are also being imposed on the ability to take on indirect risks stemming from ‘implicit support’ for shadow banking entities, for example in connection with reputational risk. These proposals are designed to reduce the interconnectedness between traditional banks and shadow banks and to ensure that banks are less able than in the past to increase their leverage through the shadow banking system.

Box 6 gives a more detailed description of these measures. The Basel Committee on Banking Supervision has taken the lead in implementing the proposals, which are in line with the changes already put in place as part of the new international supervisory standards (‘Basel III’).

*(2) Money market funds*

The systemic risk in relation to money market funds stems mainly from the vulnerability to runs and the potential disruption of their function as financiers of other financial institutions that can result from this. They therefore play an important role in the credit chain and the build-up of leverage. A key recommendation is to examine whether standards can be set for the way in which they operate and to explore the scope for imposing capital and liquidity requirements. This is particularly important for money market funds that work with fixed nominal targets and are therefore at risk of a run if doubts arise as to their ability to guarantee these nominal sums.<sup>33</sup> This risk is much less prominent for money market funds with more variable structures.

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<sup>32</sup> See FSB (2011a, 2012b).

<sup>33</sup> Such structures are described as (constant) Net Asset Value (NAV). The possibility that money market funds will be unable to achieve the constant NAV is described as ‘breaking the buck’.

IOSCO (International Organisation of Securities Commissions) is the main standard-setting body involved in the implementation of these recommendations. In addition, in 2010 the US authorities introduced regulations to limit the risks to which the assets of money market funds are exposed, and European guidelines for money market funds were also tightened up.

#### **Box 6 - Basel Committee measures on shadow banking**

The FSB asked the Basel Committee on Banking Supervision to investigate the following four specific aspects of the interaction between banks and shadow banking entities:

- *Consolidation.* It is important that shadow banking entities in which banks are involved (e.g. as owners or sponsors) are fully consolidated in solvency and liquidity supervision. This requires harmonisation with accounting standards (such as IFRS and US-GAAP), especially as regards the establishment of the threshold values at which the bank is considered to be a controlling entity.
- *Large exposure rules.* The Committee is investigating the extent to which the limits for bank investments in shadow banking entities – both aggregated and per entity – need to be tightened up. This will form part of a broader review of the large exposure rules, which will also include aspects such as intragroup exposures and short-term exposures.
- *Investments in high-risk funds.* For specific categories, such as investments in high-risk funds and credit facilities, consideration is being given to raising the capital requirements by means of a three-stage decision-making procedure. Depending on the available information, banks will need to apply a ‘look through approach’ (all components of a fund are treated as separate investments), a ‘middle ground option’ (an assumption that the fund invests in assets with the highest capital requirements) or a ‘fallback treatment’ (high risk weighting). Another focus area is combating risks associated with leverage.
- *Implicit support.* The Basel Committee published guidelines in July 2009 on the basis of which banks must identify reputational risks and include them in their risk management systems. Risks in connection with securitisations must also be incorporated in stress tests. Identifying implicit support for shadow banking entities has proved to be difficult in practice. Possible measures to be taken by the regulator range from closer monitoring to restructuring of securitisation transactions, consolidation in the accounts, stricter capital requirements and a ban on implicit support structures.

These measures fit in with the changes already initiated in the context of the new international regulatory standards (Basel II and III).

### *(3) Other shadow banking entities*

Other shadow banking entities include various categories, such as conduits/SIVs (Structured Investment Vehicles), finance companies and hedge funds. These entities fulfil different functions, while supervision and regulation vary from one country to another. The FSB recommendation is that an inventory should first be made of the risks and potential measures. This could then lead to specific capital and liquidity requirements, for example.

### *(4) Securitisation*

Securitisation is a useful financing instrument and means of spreading risk. During the crisis, however, vulnerabilities came to light resulting from the incorrect use of credit ratings, excessive complexity, inadequate pricing and perverse incentives for providers of these products to manage the risks properly.<sup>34</sup> It is recommended that the incentives for providers be improved, for example by requiring them to retain a portion of the risks on their own balance sheet. Ways are also being sought of improving the standardisation and transparency of securitisations. The Basel Committee and IOSCO are taking the lead here.

### *(5) Securities lending and repo transactions*

Measures being developed include restricting the opportunities to reuse collateral and the development of macroprudential tools to counter the consequences of top-up payment obligations, for example the imposition of minimum requirements for initial margins and haircuts when valuing collateral at the time of the transaction.

**Finally, there are policy initiatives which are not aimed directly at shadow banking risks but which still influence them, such as the policy aimed at improving the manageability and capitalisation of systemically important financial institutions (SIFIs) and the new regulations designed to make the trade in over-the-counter (OTC) derivatives more transparent and safer.** As described in Chapter 2, many shadow banking activities are facilitated by a small group of broker-dealers, all of which are internationally designated as SIFIs. Starting in 2013, these institutions will be required to provide more information on their securities lending and repo positions. Intensive efforts are also under way to improve the ability to manage systemic banks in crisis situations, for example making it easier to wind them up without jeopardising the stability of the financial system.<sup>35</sup>

New European rules (the European Market Infrastructures Regulation, EMIR)<sup>36</sup> will also come into force in 2013 aimed at reducing the counterparty risks inherent in derivatives trading. These Regulations include mandatory settlement by a central

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<sup>34</sup> The Joint Forum (2011) has compiled an inventory of the main incentives for securitisation.

<sup>35</sup> See FSB (2011c).

<sup>36</sup> The EMIR has now been formally renamed the Regulation on OTC Derivative Transactions, Central Counterparties and Trade Repositories.

counterparty (CCP) of standardised derivative contracts traded outside the stock exchange, requirements in relation to the collateral and transferability of positions and mandatory reporting of all derivatives transactions. These regulations also apply to shadow banks. The flipside of these new rules is that the use of CCPs could increase the concentration risks, and these entities will therefore have to be subject to more stringent requirements in order to ensure that no new financial stability risks are created.

**In line with the FSB framework, Europe is also working towards better control of shadow banking risks.** As regards monitoring, there is a role for the European Systemic Risk Board (ESRB), which was created in 2010 and given the task of analysing macroprudential risks, issuing warnings about them and making policy recommendations. Implementation of those policy proposals is a matter for the European Commission and the Member States. The Commission put forward proposals in March 2012 which are largely consistent with the work of the FSB.<sup>37</sup>

By the middle of 2013, the Alternative Investment Fund Managers (AIFM) Directive must be embedded in national legislation across the Member States. This Directive extends the scope of supervision to include managers of a range of entities, including hedge funds, private equity funds and property funds – entities that can develop shadow banking activities. The existing European regulations on collective investment schemes are also being tightened up, especially with regard to UCITS<sup>38</sup> which hold a European passport enabling them to offer their services to consumers in all Member States, provided they meet certain rules. The UCITS Directive in which these rules are set out is to be amended in the near future to take more explicit account of the risks posed by shadow banking, such as investments in money market funds and use of collateral.<sup>39</sup>

#### 4.2 A look to the future

**The shadow banking system will continue to exploit new developments and policy initiatives, especially if traditional financial services do not fully match demand.** For example, trends such as population ageing are creating greater demand for specific financial services to fund pension provisions. New policy initiatives are also important, with regard to both the above measures targeting the shadow banking system and the broader trend towards tightening up supervision and regulation. The scope of financial institutions is being constrained by stricter standards in relation to rewards, credit ratings and valuation methods. The new

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<sup>37</sup> See European Commission alinea (2012a).

<sup>38</sup> Undertakings for Collective Investment in Transferable Securities.

<sup>39</sup> The UCITS Directive has existed since 1985, and among other things contains rules on liquidity and transparency. In July 2012, proposals to amend the Directive to take account of shadow banking risks were published for consultation; see European Commission (2012b).

international supervisory framework (Basel III) also requires banks to increase their capital and liquidity buffers, which in the short term will limit their ability to lend. These stricter requirements are important in making the financial system safer, but also inevitably cause incentives for creative solutions to circumvent the restrictions.

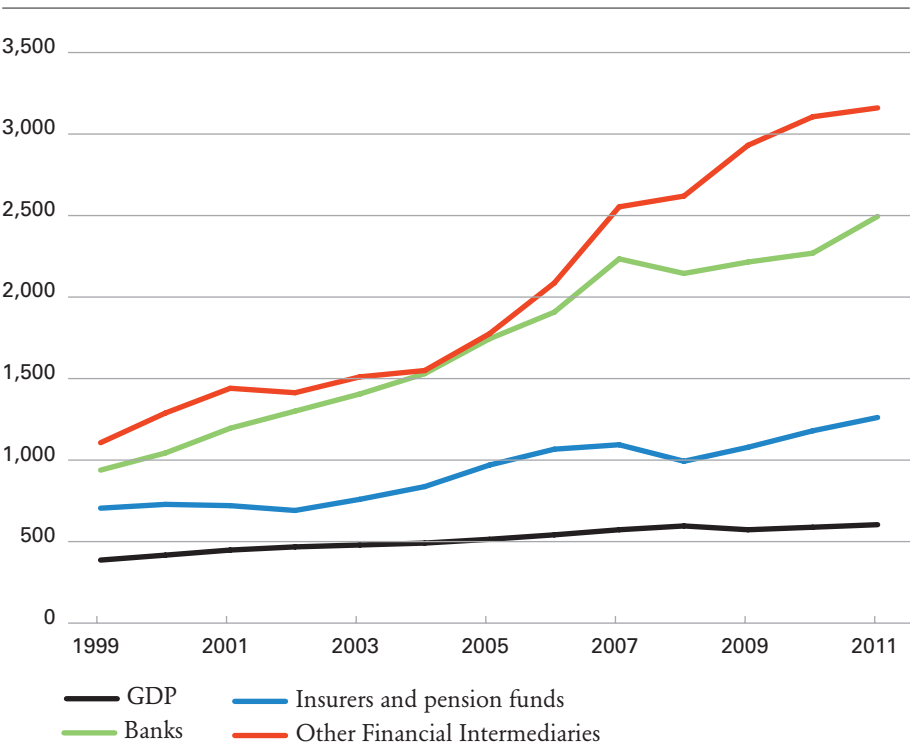
**It is therefore important to continue to monitor the shadow banking system and to be attentive to new systemic risks.** The FSB is taking the lead internationally, but it is also important that the bodies responsible for setting international standards (Basel Committee, IOSCO, IAIS) continue to monitor their own sectors critically and that national authorities keep a very close eye on developments in their own financial system.

# Annex 1 Development of the Dutch financial sector

The growth in total assets of the Dutch banking sector and Other Financial Intermediaries has outpaced GDP growth since the end of the 1990s (Chart A1.1). The OFI sector continued to grow during the crisis and is extremely large by international standards, accounting for approximately twenty percent of the OFI sector in the euro area, whereas the Dutch economy accounts for only between six and seven percent (Chart A1.2).

**Chart A1.1 Development of Dutch financial sector**

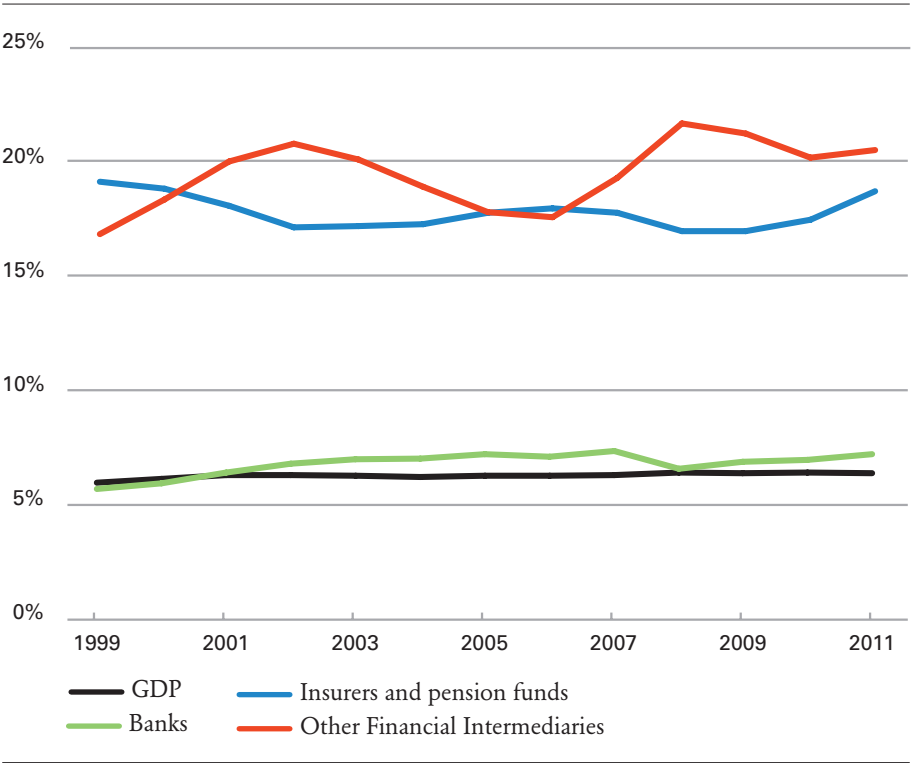
EUR billion.



Source: CBS.

Chart A1.2 Share of the Netherlands in euro area

Percentages.



Sources: Statistics Netherlands, ECB.

## Annex 2 Link between financing and exposure per country

The following matrix links the country investments of SFIs to their financing. For each SFI, the balance sheet total of the liabilities is analysed pro rata the investments in different countries on the asset side.<sup>40</sup> The figures (in billions of euros) are based on data for 2010.

A substantial proportion of the balance sheet total remains within the Netherlands, largely in the form of investments between SFIs forming part of the same company. In the main text, these mutual investments are not included in the balance sheet totals. The picture is also dominated by the major economies (US, UK, Germany, France) and familiar offshore centres (Luxembourg, Hong Kong, etc.).

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<sup>40</sup> Suppose, for example, that an SFI with a balance sheet total of 100 million raises finance in Luxembourg (80 million) and the UK (20 million) and has exposures in the UK (60 million) and Germany (40 million). In that case it is assumed that 48 million ( $80/100 \times 60/100$ ) goes from Luxembourg to the UK and 32 million ( $80/100 \times 40/100$ ) to Germany. 12 million ( $20/100 \times 60/100$ ) goes from the UK back to the UK and 8 million ( $20/100 \times 40/100$ ) goes to Germany.

[illegible]

Non-financial SFIs

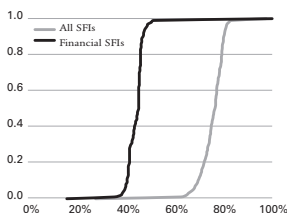
		Exposures (assets)																					
		Netherlands	Luxembourg	UK	US	Germany	Switzerland	Spain	France	Ireland	Bermuda	Italy	Belgium	Sweden	Japan	Brazil	Netherlands Antilles	Canada	Russia	Singapore	Cayman Islands		
1	Netherlands	37.1	54.2	35.5	84.2	17.9	18.0	11.9	17.2	22.4	0.0	8.1	16.5	4.4	3.7	6.9	5.9	16.6	16.6	3.3	9.6	98	
2	Luxembourg	100.9	4.6	75.2	27.3	18.5	16.5	24.9	7.7	2.9	0.7	12.8	3.2	2.9	0.0	2.0	3.5	2.6	0.5	12.7	3.7	333	
3	UK	90.4	16.5	56.1	17.8	25.4	3.2	16.7	5.2	3.3	8.4	8.6	1.8	4.4	0.6	0.7	0.0	7.2	0.9	0.2	0.1	268	
4	US	139.9	11.6	43.1	29.6	8.6	19.1	4.6	10.6	6.3	0.4	4.8	3.3	2.5	15.3	5.6	0.0	10.7	0.2	0.7	0.3	317	
5	Germany	50.8	1.8	34.1	24.5	25.4	3.5	3.3	6.7	0.7	0.0	5.7	4.5	4.8	2.0	1.3	0.1	1.4	0.5	1.8	0.1	173	
6	Switzerland	14.3	1.9	17.9	2.0	2.9	6.7	9.9	8.2	0.8	0.0	1.8	0.8	0.6	0.9	0.2	0.0	2.5	0.1	0.1	0.0	72	
7	Spain	12.1	1.4	1.8	5.8	1.2	1.3	14.6	0.9	0.8	0.0	0.4	0.1	0.0	0.0	0.2	0.0	0.3	0.7	0.4	0.0	42	
8	France	17.8	5.8	4.7	6.5	6.4	4.9	2.2	12.8	1.3	0.1	2.2	2.5	1.2	0.1	2.6	0.0	0.3	0.2	0.2	0.0	72	
9	Ireland	30.1	10.9	6.2	4.1	1.0	0.2	4.0	1.4	12.5	0.2	0.6	0.5	0.5	1.9	0.0	0.0	1.5	0.1	0.3	0.0	76	
10	Bermuda	18.5	46.3	1.5	2.8	1.4	3.0	1.2	2.0	6.1	8.4	0.8	1.6	0.1	1.3	0.0	0.0	1.0	0.0	0.5	0.0	97	
11	Italy	24.2	2.9	2.4	2.1	0.9	0.7	8.2	1.8	0.3	0.2	3.0	2.2	0.0	0.1	4.0	0.0	1.1	2.5	0.1	0.0	56	
12	Belgium	11.8	5.1	1.0	16.5	6.9	1.0	3.3	1.4	0.2	0.0	0.4	2.6	0.1	0.0	5.8	0.6	0.3	0.2	1.3	0.2	59	
13	Sweden	3.7	0.0	2.2	0.3	3.5	0.8	0.1	0.2	0.2	0.0	1.2	1.2	13.1	0.1	1.2	0.0	0.2	2.5	0.0	0.0	31	
14	Japan	6.9	0.2	7.6	1.5	1.9	2.5	0.2	1.0	0.6	1.7	0.5	1.3	0.4	1.2	0.8	0.0	0.5	0.1	1.4	0.6	31	
15	Brazil	2.2	0.0	0.2	1.6	0.1	0.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	8.6	0.0	0.0	0.0	0.0	0.1	14	
16	Netherlands Antilles	1.5	11.5	2.1	25.0	0.2	1.5	0.1	0.5	0.0	0.0	0.2	0.1	0.0	0.1	0.3	0.2	0.1	0.2	0.0	0.0	44	
17	Canada	2.7	0.0	0.2	0.2	1.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.4	0.0	2.1	0.0	0.0	0.0	8	
18	Russia	2.7	0.3	0.0	0.0	0.1	0.0	0.0	0.5	0.0	7.7	0.0	0.2	0.0	0.0	0.0	0.0	0.3	2.6	0.0	1.0	15	
19	Singapore	2.8	0.1	0.5	0.5	0.2	0.2	0.0	0.4	0.9	0.3	0.0	0.8	0.0	0.1	0.0	0.0	0.5	0.0	8.1	0.0	15	
20	Cayman Islands	11.3	0.5	0.2	0.5	0.4	0.0	3.3	0.0	0.2	0.1	0.0	0.0	0.3	0.0	2.9	0.4	0.0	0.0	0.0	0.9	21	
		902	276	293	253	124	84	110	79	59	28	52	43	36	28	43	11	46	28	31	16	2540	

## Annex 3 Distribution of SFI Balance sheet ratios

The charts below show the distribution of a number of balance sheet variables of SFIs (vertical axis) based on data for 2010. In many cases, the majority of SFIs have a one-sided structure, for example financing their activities either almost completely internally or almost completely externally and almost entirely with or almost entirely without equity. Financial SFIs more often finance their activities entirely externally and are relatively more leveraged. Many finance companies combine almost complete external financing with low equity; combinations of these two elements with predominantly short-term finance – the most risky mix – are however almost non-existent.

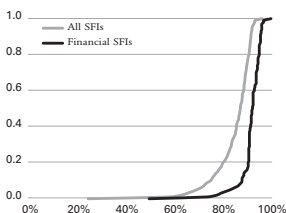
### External finance

Proportion of external capital generation



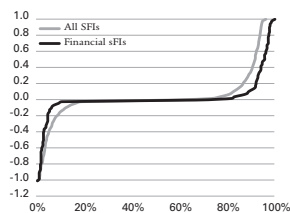
### Short-term finance

Proportion of finance with a term of less than one year



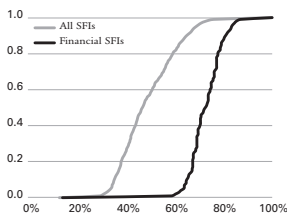
### Maturity mismatch

Proportion of short-term assets less short-term liabilities



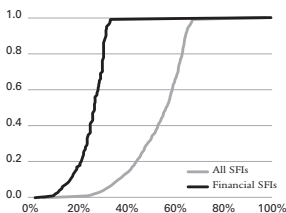
### Equity

Proportion of equity finance



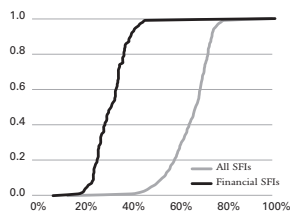
### Credit assets

Proportion of lending on asset side of balance sheet



### Credit liabilities

Proportion of borrowing on liability side of balance sheet



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## Glossary

**Alternative Investment Funds Managers (AIFM) Directive EU** Directive applying for all managers of collective investment schemes that do not qualify as UCITS (non-UCITS). Briefly, UCITS are collective investment schemes targeting retail investors. Non-UCITS funds are alternative investment funds such as hedge funds, private equity funds, property and other non-retail funds.

**Asset Backed Commercial Paper (ABCP)** Short-term debt paper with collateral, generally consisting of loans.

**Asset Backed Securities (ABS)** Financial instrument that is financed with a cash flow generated from assets that also serve as collateral.

**Auto ABS** ABS where the underlying asset consists of loans to finance cars.

**Collective investment scheme** Investment trust companies (with legal personality) and investment funds (without legal personality) that units and use the funds raised to undertake collective investments.

**Investment firm** An entity that performs investment activities (such as trading in financial instruments for its own account) or provides investment services (such as mediating in the buying and selling of financial instruments, asset management or investment advice). Referred to for short as securities brokers and asset managers.

**Custodian.** Takes securities into custody and carries out the securities administration and the settlement of securities transactions.

**Special Financial Institutions (SFIs)** Entities created in the Netherlands by foreign multinationals as a conduit for financial flows between foreign group companies.

**Broker-dealer** Individual or firm acting as a dealer in the securities transaction for own account or for the account of the client.

**Cash CDO** Regular CDO in which a mixed pool of liquid assets (loans and/or securitisations) is acquired and financed in full. A variant is the cashless CDO, where there is no principal but only coupon payments, with the holder being obliged to make good any shortfalls (in reality, this operates as a credit insurance from the holder to the issuer, with the coupons forming the insurance premium).

**Commercial Mortgage Backed Securities (CMBS)** ABS where the underlying assets consist of commercial mortgages, with commercial property as collateral.

**Credit Default Swap (CDS)** Contract between two parties in which the credit risk on a specific loan is transferred to another party, for which that party receives a payment.

**Collateralised Debt Obligation (CDO)** Debt instrument with collateral, generally consisting of pooled individual loans and/or securities, which are bundled in order to make them marketable.

**Securities lending** Financial service in which a party temporarily lends securities to another party in return for a fee.

**European Market Infrastructures Regulation (EMIR)** European Regulation designed to reduce the trade in and risk of derivatives by enhancing their transparency and security. The Regulation includes an obligation to settle OTC derivatives via a central counterparty, requirements in respect of collateral and transferability of positions, and mandatory reporting of all derivatives transactions. The Regulation has now been formally renamed the Regulation on OTC Derivative Transactions, Central Counterparties and Trade Repositories.

**Financial holding company** Conducts the management of a group of financial subsidiaries.

**Finance lease company** Company which provides finance in the form of a finance lease, whereby the party that leases the assets acquires economic ownership of them. This contrasts with operating lease, where the assets remain the property of the lease company; operating lease companies are regarded as financial service providers and therefore as part of the non-financial companies sector.

**Finance company** (not an SFI) Financial company (other than a bank, insurer or pension fund) which provides loans mainly to households and businesses. They are mostly engaged in the provision of consumer credit, mortgages, finance leases and factoring facilities.

**Leverage** Financing of activities with fixed obligations such as borrowed capital, as a result of which sharp upward or downward movements exaggerate the net profit or net loss.

**Money market fund** Institution that finances its activities with demand or short-term deposits and invests them in money market paper or short-dated bonds.

**Hedge fund** Investment institution that seeks to obtain positive absolute returns, regardless of developments in the financial markets, by applying relatively unlimited investment strategies, and where the management fee is generally linked to the returns.

**Moral hazard** Phenomenon whereby parties increase their risks because they do not bear all the costs if those risks should manifest themselves.

**Multi-issuance** Issue of several series of securities in which assets are ring-fenced on the basis of specific issues; may involve both traditional and synthetic securitisations.

**Originate-to-distribute model** Phenomenon whereby financial institutions grant loans with a view to subsequently transferring them – or the credit risk associated with them – to interested parties through Special Purpose Vehicles.

**OTC (over-the-counter) derivatives** Derivative contracts that are not traded in a regulated market.

**Private equity firm** Institution that invests temporarily in mainly unlisted businesses and plays an active part in running those businesses.

**Repurchase Operation (Repo)** Financial service in which securities are sold with a contractual obligation on the part of the seller to buy back the securities at a later date at a predetermined price. This is a form of securities lending where the primary focus is on the loan and the securities form the collateral.

**Residential Mortgage Backed Securities (RMBS)** ABS in which the underlying assets consist of residential mortgages.

**Shadow banking** The system of credit intermediation as performed by entities and activities falling outside the mainstream banking sector.

**Special Purpose Vehicle (SPV)** Entity, such as an ABCP conduit or Structured Investment Vehicle, set up to carry out specific activities or projects of an enterprise and to hold the associated assets.

**Structured Investment Vehicle (SIV)** Vehicle that issues short-term securities (principally ABCP) with low interest rates and invests the proceeds in long-term securities (mainly ABS) with high interest rates.

**Synthetic CDO** CDO in which only the credit risks, not the credits, are transferred by means of credit derivatives.

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