Special Report 2012/04

Casting more light on shadow banking

Shadow banking has been placed high on this year's agenda for regulating bodies including the Financial Stability Board (FSB) and the European Commission (EC). The risks of the shadow banking system became apparent during the credit crisis, making it clear that this segment of the financial system required greater attention. What does shadow banking mean and how do regulators and supervisors address the risks?

What is shadow banking?

The FSB (2011a) defines *shadow banking* as the system of credit intermediation that involves entities and activities outside the regular banking system. They either provide credit – directly or as part of a 'chain' – or facilitate the process of credit intermediation. Financing companies, special purpose vehicles (SPVs), hedge funds, investment banks, money market funds and forms of financing such as crowd funding and credit-providing mail-order shops and department stores all fall under this broad definition of the shadow banking system. Due to the focus on credit intermediation, the FSB also includes the trade in credit-related financial instruments such as (credit) derivatives, bonds and structured financial products within the scope of this broad definition. The trade in shares and currency transactions through entities outside the regular banking system falls outside the scope of the definition, unless it forms part of the credit intermediation chain. The term shadow banking is derived from the environment in which it takes place, namely one in which there is little or no regulation or oversight ('in the shadow').[1]

Fragmented credit intermediation

Credit intermediation at banks traditionally occurs under one roof: the bank attracts savings deposits, fixed-term deposits and possibly other funding and simultaneously provides credit. This entails processes including maturity/liquidity transformation: short-term, liquid savings are transformed into long-term, less-liquid loans. While this process can also occur within one entity in the shadow banking system, the process is more frequently fragmented and carried out by a chain of shadow banks and activities (Pozsar et al., 2010). Securitisation[2] and short-term (covered) money market financing[3] rather than savings play a key role within this context (refer to box). Banks can also form part of a credit intermediation chain, for example if they securitise part of the loan portfolio.

Credit intermediation chains: an example

An example is the best way to illustrate how different links within the shadow banking system ensure credit is provided. A financing company that provides loans finances them by selling these loans to an SPV. It bundles and slices the loans and transforms them into tradable bonds (securitisation). Other shadow banking entities, such as special investment vehicles (SIVs), investment banks and hedge funds, invest in these tradable bonds. They do this with short-term funds that they raise by issuing money market instruments such as (Asset-Backed) Commercial Paper (ABCP) and repos. Other shadow banking entities, such as money market funds, invest in these instruments.

[1] Parts of the shadow banking system are, incidentally, absolutely regulated. An example is the strict oversight of standardised derivatives that are traded on stock exchanges. The regulation and oversight of shadow banking is, however, much more fragmented than in the case of banks.

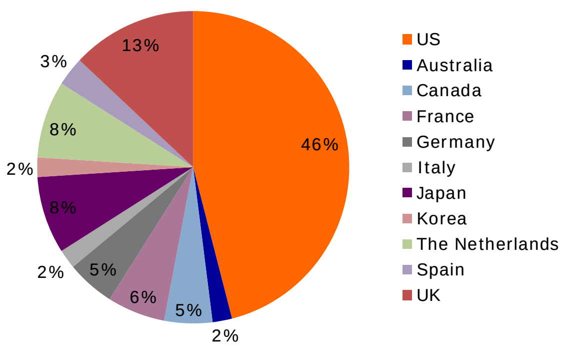
[2] Securitisation is the bundling, repackaging and reselling of packages of loans.

[3] Examples include (asset-backed) commercial paper, repurchase agreements (repos) and financing raised from money market funds.

How large is the shadow banking system?

It is very difficult to make an exact measurement of the shadow banking system. This is because some parts of the shadow banking system are invisible, the available data are not entirely adequate and the shadow banking system does not stand separately from the regular banking system, as will be explained below. Despite these limitations, the FSB (2011b) nonetheless estimates that the shadow banking system's assets totalled some 46 trillion euros in 2010, compared to 21 trillion euros in 2002.[4] This means shadow banking makes up an average of 25% to 30% of the total financial system and its size is equal to half of all bank assets. The share of shadow banking also varies considerably from country to country (refer to figure 1).
The United States has by far the largest shadow banking system, followed by the United Kingdom. Of the other countries, the Netherlands 'scores' relatively high at 8%. This is explained by the relatively large importance of securitisation for lending by Dutch banks. Due to the limited size of the Dutch savings market, it is an important source of financing alongside savings deposits and fixed-term deposits and other forms of market financing (refer to Smolders, 2011).

Figure 1: Share in global shadow banking



Source: FSB (2011b)

[4] The FSB (2011) has used the total assets of 'Other financial institutions' in Australia, Canada, Japan, Korea, UK, US and the eurozone as proxy for credit intermediation by non-banks.

What are the risks?

While 'shadow banks' are not banks, they can create the same risks as banks, without having to fulfil the same (oversight) rules. These risks became extremely evident in the run-up to and during the credit crisis (2007-2008).

One of these risks is the *vulnerability to banklike runs.* Shadow banks finance their often long-term investments mainly with short-term funding (money market financing). As a result they must regularly return to the market for refinancing and run refinancing or liquidity risks in the same way that banks do. A significant difference, however, is that banks are subject to liquidity supervision and shadow banks are (often) not. Shadow banks can consequently finance long-term assets with short-term funding to a much a greater extent. They consequently benefit from the normal situation in which the short-term interest rate is lower than the long-term interest rate, but the refinancing risk increases. Another crucial difference from banks is that an (official) 'safety net' does not exist for shadow banks. The risk of a run by savers at banks is restricted somewhat by deposit guarantee schemes[5] and, in the event of liquidity problems they can count on the Central Bank's 'lender of last resort' function and facilities. These facilities are, however, only provided to the banks on the condition that they accept the obligation to subject themselves to a strict regulatory oversight regime.
The credit crisis began with this type of run on the shadow banking system. The loss of confidence in securitised US subprime mortgages meant many SPVs and other shadow banks (such as financing companies) were no longer able to (re-)finance their operations by issuing ABCP. The run could only be stabilised after the US Federal Reserve provided a range of official liquidity facilities and credit guarantees (refer to Pozsar et al., 2010).

[5] Research further reveals that the presence of an extensive Deposit Guarantee Scheme reduces stability on balance. Refer to Barth et al. (2004).

A second risk attached to the shadow banking system is that *problems can spread to other financial institutions through the interlinkage with the rest of the financial system.* This is called *systemic risk*. This was manifested during the credit crisis due to the fact that banks were asked to fulfil the liquidity and credit guarantees they had extended to SPVs. They also sometimes felt compelled, due in part to the potential reputation risk, to place parts of the securitised portfolio back on the balance sheet. The increasing demand for liquidity in order to meet such obligations combined with a decreasing supply owing to the erosion of mutual trust between banks led to the shutdown of the interbank money market. This consequently made it necessary for Central Banks to intervene forcefully (refer to Bruinshoofd, 2008).

High, often unregulated and invisible leverage is a third risk attached to the shadowing banking system. High leverage results in few capital buffers to absorb losses. This makes the entire financial system more vulnerable because shadow banks have relationships with other financial institutions. The FSB (2011a) suggests that the shadow banking system can also intensify economic cycles. Financing based on collateral is the 'engine' of the shadow banking system and consequently largely determines how much credit intermediation takes place within the system. Collateral values are high during good economic times and as a result more credit is extended. However, during poor economic times when confidence is lost, which was the case during the credit crisis, collateral values and the amount of credit lending, can drop sharply. But it is the same story within the regular banking system that also provides financing on the basis of collateral.

In closing, the shadow banking creates *possibilities for (regulatory) arbitrage.* The fact that shadow banks are less regulated than banks gives them a competitive advantage and creates an uneven playing field. This makes it possible for the shadow banking system to grow at the expense of the regulated banking system (arbitrage). In addition, banks can use shadow banking entities or activities to avoid or reduce regulation such as capital and liquidity requirements (regulatory arbitrage). Both arbitrage and regulatory arbitrage lead to more debt and risks being built up in the financial system outside the view of regulators than is desirable.

Does this mean shadow banking is bad?

It is wrong to think all shadow banking activities are by definition bad and should consequently be banned completely. An important and substantial part of the shadow banking system contributes to economic growth. The shadow banking system constitutes an alternative source of financing and liquidity for companies. In the United States, for example, the shadow banking system provides just as much credit as the regular banks (Pozsar et al., 2010). The shadow banking system also offers economic added value because it enables part of the credit lending by banks. Securitisation makes it possible for banks to create scope for new credit lending or to provide more credit than would be possible on the basis of available deposits (as in the Netherlands). Shadow banking entities such as money market funds also provide short-term financing to banks. So the challenge for regulators is to control the (systemic) risks of the shadow banking system without losing (too many of) the advantages for the real economy.

Which measures are regulators and supervisors taking at present?

Shortly after the credit crisis, regulators in the EU introduced a number of measures aimed at better controlling the risks of the shadow banking system. One example is the increased direct regulation of several shadow banking activities, such as investment companies and funds (refer to EC, 2012). The indirect regulation has also been expanded and

strengthened. Banks must, for example, from now on keep part of the securitised loan portfolio on their own balance sheet and reserve capital for liquidity and credit guarantees to SPVs (CRD II). The capital and reporting requirements for investment in complex resecuritisations have also increased (CRD III) and the implementation of CRD IV ('Basel III') will further strengthen banks' resiliency.
These were, however, all stand-alone measures. A complete and detailed picture of the shadow banking system – the risks and how they can be regulated – had until now always been lacking. The FSB, which coordinates the work of the financial regulators at the international level, made a first attempt at the request of the G20 (FSB, 2011a, b). This advisory body presented several recommendations late last year and stated that regulators should narrow their focus to that section of the shadow banking system that leads to systemic risk and/or regulatory arbitrage. The FSB also set up five workgroups in which the main jurisdictions that are considering these regulations are represented (EU, US, China and Japan). These workgroups are currently studying five sub-areas[6] and will present regulatory proposals in the second half of 2012. Separate from this, the European Union is also working at its own initiative on legislative proposals that are expected to be presented after the autumn (refer to EC, 2012). We will examine the regulation proposals in an upcoming Special Report.

In conclusion

The credit crisis was the immediate cause for developing plans to regulate the shadow banking system more stringently. The importance of taking action has increased further because the regulation of banks has been tightened. This has consequently increased the (arbitrage) possibilities for shadow banking and means more activities will be shifted from the regular banking system to the shadow banking system (refer to FSB, 2011b). Regulation of the shadow banking system is not, however, an easy task. First of all, identifying and monitoring the risks that occur within the shadow banking system is an extremely challenging undertaking in itself considering that shadow banks by definition operate in the shadow of the oversight. The shadow banking system also has a complex structure: credit intermediation is divided across multiple links that are also strongly interconnected with the regular banking system. Regulation of the shadow banking system must consequently occur in an integrated manner. It is also important to realise in this regard that when part of the financial system is regulated more stringently, a larger part of the activities will take place in other non-regulated or less-regulated sections. This is why overregulation of the shadow banking system would prove to be unproductive.

[6] The interaction of banks with shadow bank entities, money market funds, other shadow bank activities, securitisation and securities lending and repos.

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