Regulation of shadow banking

Berlin, January 2014
Association of German Banks
The financial crisis spawned a new buzzword, one that automatically triggers a feeling of unease among many people: shadow banking! It is a term which suggests that something shady is going on – banking conducted well out of public sight and largely unfettered by any rules or supervision. On top of this, shadow banking is given a large share of the blame for the financial crisis. From the onset of the crisis, there were therefore high hopes that this area of the financial markets, which had previously operated largely off the public radar, could be regulated and supervised tightly and consistently.

Not until the Seoul G20 summit in November 2010 was the Financial Stability Board (FSB) mandated to draft proposals for the regulation of shadow banking. This fuelled suspicion that shadow banking was going to remain a dark spot. When the FSB presented its results to the G20 summit in St Petersburg just under two years later, the public perception was that regulation of shadow banking was only just getting underway at that point.

This impression is completely wrong, however. Financial market regulation affecting shadow banking was implemented before the mandate to the FSB. And further regulation was adopted during the FSB’s work as well.

The fact that all this has gone more or less unnoticed by the public is down to shadow banking itself. Shadow banking activities are highly varied and can be performed by different financial institutions. So there will not – and cannot – be one single piece of shadow banking legislation. Shadow banking has been regulated so far in a large number of laws that do not use the term “shadow banking” at all in either their title or their wording. Regulation of shadow banks has thus taken place quietly, attracting little public attention. This brochure provides an overview of all legislative activities up to the end of 2013 of which we are aware.

Foreword

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<td><strong>Legislation implemented or in the process of being implemented</strong></td>
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<td>EU (page 16)</td>
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<td>CRD II, CRD III, CRD IV, CRR, IFRSs 7, 10, 11, 12, EMIR</td>
<td>AIFMD, UCITS Directive, EMIR</td>
<td>AIFMD, EMIR</td>
<td>CRD II, CRD III, equivalent requirements also included in AIFMD and UCITS Directive</td>
<td>No measures taken yet</td>
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<td>Amendment of accounting rules (FASs) 166 and 167 on consolidation; Section 165 of the DFA Section 619 of the DFA (Volcker Rule)</td>
<td>Amendments to Rule 2a-7 of the Investment Company Act; Introduction of Rule 22e-3</td>
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<td>EU</td>
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<td>Prudential limits for banks’ exposures to shadow banking entities (large exposures) Increased capital requirements for banks’ exposures to shadow banking entities (e.g. inclusion of investments in funds)</td>
<td>Implementation of regulatory proposals still pending</td>
<td>FSB policy recommendations are principles-based. Difficult to say what other regulatory steps will be taken in the EU or US. Development of a process for an international exchange of information on shadow banking activities and entities</td>
<td>None</td>
<td>Development of data collection and aggregation standards Introduction of minimum haircuts</td>
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<td>EU Structural reform of the banking sector</td>
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State of play in regulation of shadow banking in the EU and the US

Background
Shadow banking is given a large share of the blame for the financial crisis. This perception raises the question of what kind of shadow banking system should remain in place in the future. As this area of the financial markets is widely seen as being completely unregulated, public expectations of national and international legislators were high right from the onset of the crisis. Regulatory efforts initially focused on the regular banking sector, however, so that regulation of shadow banking at international level was somewhat late in getting underway. It was not until the Seoul G20 summit in November 2010 that the Financial Stability Board (FSB) was mandated to draft regulatory proposals.¹

This mandate took the FSB into unchartered territory. The first job it faced was actually defining “shadow banking” – a term only coined in 2007 – in the first place. The consensus today is that shadow banking means “a system of credit intermediation that involves entities and activities outside the regular banking system”.² Shadow banking thus has three characteristic features:

- in credit intermediation, it performs a function similar to that of regular banks,
- this function is performed frequently by several players interacting with each another, usually via the financial market,
- and, finally, shadow banking entities are neither subject to banking regulation or oversight, nor do they have access to deposit guarantee schemes or central bank money.

Regulation was made trickier by the fact that regular banks and shadow banking entities are interconnected in many ways. Take, for example, money market funds, which finance both regular banks and shadow banking entities, as well as conduits and special investment vehicles (SIVs), which are supported by regular banks through credit guarantees, and securitised loans, which often – if not always – emanate from regular banks. And, finally, both regular banks and shadow banking entities operate in the repurchase agreement (repo) and securities lending markets.

Between the turn of the century and the start of the financial crisis in 2007, shadow banking more than doubled in size to around $60 trillion, while the assets held by regular banks amounted to just over $100 trillion then. Following the onset of the financial crisis, the shadow banking sector initially shrank, although with assets of over $71 trillion in 2012 according to the most recent FSB Monitoring Report, its absolute size easily surpasses the figure before the crisis. In relative terms, i.e. measured against GDP, it has not yet reached the pre-crisis mark again, however. Although it should be borne in mind that the growth is due to a large extent to positive asset performance.³

To understand the rapid growth of shadow banking, both supply-side and demand-side aspects need

¹ www.g20.utoronto.ca/2010/g20seoul-doc.pdf
² www.financialstabilityboard.org/publications/r_111027a.pdf
³ www.financialstabilityboard.org/publications/r_131114.pdf
to be taken into account. On the supply side, this means particularly regulatory arbitrage and gains in efficiency. Regulatory arbitrage becomes a threat to financial market stability if it creates systemic risks. In view of the experience made during the financial crisis, the call for the same financial market business to be subjected to the same rules remains as relevant as ever.

But not everything in shadow banking revolves around regulatory arbitrage. The rapid sequence of financial market innovations has also led to specialisation advantages and more efficiency. Securitisation, for example, is a quite sensible and efficient way of combining the advantages of financing through bank loans with those of bond and/or equity financing, thus giving borrowers indirect access to the capital markets. For banks, securitisation is, at the same time, a valuable tool they can use for refinancing, for both portfolio and risk management, and for pricing credit risk.

Shadow banking therefore enables investors to spread risks over a broader range of products and, in this way, to reduce them as a whole. Conversely, it gives banks and other borrowers the chance to diversify their sources of funding and liquidity. In this context, repos and securities lending will play an increasingly important role. The new regulatory requirements, particularly with regard to capital backing and derivatives, will lead to a significant

Assets of non-bank financial intermediaries – 20 jurisdictions and euro area

<table>
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<tr>
<th>Year</th>
<th>As a percentage of GDP</th>
<th>In trillions of US dollars</th>
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<tbody>
<tr>
<td>2003</td>
<td>93%</td>
<td>31.9</td>
</tr>
<tr>
<td>2004</td>
<td>98%</td>
<td>37.5</td>
</tr>
<tr>
<td>2005</td>
<td>107%</td>
<td>42.9</td>
</tr>
<tr>
<td>2006</td>
<td>118%</td>
<td>51.5</td>
</tr>
<tr>
<td>2007</td>
<td>124%</td>
<td>61.2</td>
</tr>
<tr>
<td>2008</td>
<td>114%</td>
<td>58.7</td>
</tr>
<tr>
<td>2009</td>
<td>123%</td>
<td>62.9</td>
</tr>
<tr>
<td>2010</td>
<td>120%</td>
<td>66.5</td>
</tr>
<tr>
<td>2011</td>
<td>112%</td>
<td>66.6</td>
</tr>
<tr>
<td>2012</td>
<td>117%</td>
<td>71.2</td>
</tr>
</tbody>
</table>

Source: Financial Stability Board.
increase in demand for highly liquid and high-quality securities as collateral for CCP clearing or bilateral OTC transactions.

Shadow banking would never have managed to grow so dynamically, however, if it had not been for the stimulus from the demand side as well. This stimulus was delivered chiefly by a sharp increase in demand for safe, highly liquid investment opportunities — mainly from outside the financial sector. As deposit guarantee schemes are geared internationally first and foremost to retail clients, banks were unable to satisfy the growing interest in such investment opportunities among institutional investors. Particularly in the US, the search by companies and institutional investors for safe cash management facilities has therefore gone a long way towards boosting the growth of shadow banking. But financial intermediaries such as insurance companies and pension funds also have increased their demand for safe, short-term, liquid

![Assets of all financial intermediaries – 20 jurisdictions and euro area](image)
securities so that they can be more flexible in their investment strategies.

The financial crisis exposed the numerous shortcomings of shadow banking. Nevertheless, there are strong signs that it can make a positive contribution to economic growth and to global funding requirements. However, it will need to be given a regulatory framework that ensures risk-sensitive behaviour, for only then can shadow banking activities make the financial system more efficient, create more product diversity and strengthen competition and innovation.

Designing this regulatory framework presents a real challenge, however, since shadow banking is a part of the global, rather than the national, financial markets. What is more, the individual market players are closely interconnected with each other and with the regular banking system. In collaboration with the Basel Committee on Banking Supervision (BCBS) and the International Organization of Securities Commissions (IOSCO), the FSB drafted policy recommendations to strengthen oversight and regulation of shadow banking, focusing on five workstreams, and has published these successively since 2012. Policy recommendations have, in the meantime, been presented for all areas (see Table 1 in the Annex on page 34).

The FSB published an overview of its policy recommendations for the G20 summit in St Petersburg in September 2013.\(^4\) Taking this as a basis, the G20 adopted a roadmap in which members agreed on the timetable for the work on the regulation of shadow banking still pending (see Table 2 in the Annex on page 35).\(^5\)

Although the work of the FSB can thus be seen as nearly completed, this is not true of the regulation of shadow banking of course, as the FSB merely published recommendations that have to be transposed into national law by national legislators. At the same time, it would be wrong to assume that implementation is only now getting underway, six years after the onset of the financial crisis. Over the past few years, numerous regulatory initiatives covering shadow banking activities that proved to be systemically important during the financial crisis have in fact been launched both in Europe and the US. These initiatives do not carry the “shadow banking” tag, however, so that for the public they are difficult to identify as regulation of shadow banking.

In the US, in particular, regulation of shadow banking is, moreover, taking place largely independently of the G20 process. In June 2010, i.e. before the G20 summit mandated the FSB, the US Dodd-Frank Wall Street Reform and Consumer Protection Act (DFA), a comprehensive piece of legislation to regulate the financial markets drafted in response to the financial crisis, was passed.\(^6\) Although the term “shadow banking” is not mentioned at any point in the DFA, virtually all US regulation relating to shadow banking is included in it or stems from it.

In the EU, regulation of banks and the financial markets targeting shadow banking activities as well has been adopted in recent years independently of the FSB policy recommendations. Yet the regulatory process here has, as a whole, been based more heavily on the conceptual framework developed by the FSB for drafting its recommendations. For instance, the European Commission only took up the issue officially in March 2012 by circulating a green

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\(^4\) www.financialstabilityboard.org/publications/r_130829a.pdf
\(^5\) www.g20.utoronto.ca/2013/2013-0906-roadmap.html
\(^6\) www.sec.gov/about/laws/wallstreetreform-cpa.pdf
paper on shadow banking that strongly reflected the FSB’s ideas. This was followed in September 2013 by a Commission communication on shadow banking setting out the regulatory steps so far and outlining the initiatives planned for the future.

Now is therefore a good time to summarise the progress made in regulating shadow banking, taking the five workstreams on which the FSB focused as a guide.

The legislative framework

Shadow banking in the US and Europe differs greatly in terms of both its structure and importance for the financial markets. So it is no surprise that the framework for regulation and oversight of shadow banking by the FSB and EU, on the one side, and the US, on the other, was set very differently. The FSB and the EU first examined shadow banking entities and their activities to determine how far they carry systemic risks. Building on this, they then drafted recommendations for regulation geared to the nature of these risks. The EU benefits noticeably in this area from the FSB’s systematic groundwork.

The US, on the other hand, did not address shadow banking separately as part of the non-bank financial sector. Shadow banking entities and their activities have been treated so far mainly in their capacity as non-bank SIFIs. While the Financial Stability Oversight Council (FSOC) does not use the term “shadow banking” in its reports either, it does deal with its risks, e.g. tri-party repos and money market funds.

In addition, the FSOC is empowered by Section 120 of the DFA to designate specific financial market activities as systemically important. Yet this does not mean that an activity designated as systemically important is automatically subjected to supervisory restrictions. The FSOC is required to draft recommendations for regulatory measures and propose these to the supervisor responsible for overseeing such activities. The supervisor in question is free to reject the FSOC’s recommendations, although if it does so, it must explain why. This procedure has a bearing on regulation of shadow banking because Section 120 was used in November 2012 to present proposals for regulation of money market funds.

There is no single, ideal approach when it comes to regulating shadow banking. The differences internationally are too great to allow this. Both the above approaches have strengths and weaknesses. The FSB/EU approach harbours the danger of monitoring only part of the non-bank financial sector and of perhaps overlooking institutions and activities posing systemic risk that are not deemed to belong to the shadow banking sector. Since, however, the FSB and the EU additionally plan to oversee clearing houses, central counterparties (CCPs) and other financial market entities, this danger should actually be negligible.

The US approach is basically broader. Yet it suffers from the fact that, despite the comprehensive assessment of systemic relevance, the size of a non-bank financial institution is ultimately the key criterion for its classification as a SIFI. The practice so far in the US unfortunately backs up this conclusion. The US approach could therefore be blind to systemic risks posed by smaller but closely interconnected financial institutions. It is unlikely that US supervisors will manage to oversee the many different types of institution in the non-bank sector properly using a single classification of non-bank SIFIs. This is why the power given to the FSOC under Section 120 of the DFA to recommend regulation to the competent supervisory authorities when it identifies systemic risks is probably more important for the regulation of shadow banking. A serious drawback of Section 120, however, is that the competent supervisory authorities are not required to follow the FSOC’s recommendations.

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10) FSB and IOSCO only launched consultation on this aspect in January 2014: www.financialstabilityboard.org/publications/r_140108.pdf
It also remains to be seen whether the new macroprudential supervisors such as the European Systemic Risk Board (ESRB) and FSOC – but also the FSB – will be able to identify such potential risks and make appropriate recommendations both to national supervisory authorities and policymakers. An additional challenge for these bodies will be how to cooperate internationally, since potential systemic risks and regulatory arbitrage due to differing national shadow banking regulation can only be identified and eliminated with the help of an efficient global macroprudential policy.
Workstream I: Banks’ interactions with shadow banking entities

In Workstream I, the FSB seeks to address the systemic risks posed by the shadow banking sector through indirect regulation. Its aim is to reduce the systemic risks carried by shadow banking entities by regulating regular banks. To do so, the FSB looked at three areas:

1. Prudential consolidation of banks’ interactions with shadow banking entities.
2. Introduction of prudential limits for banks’ (large) exposures to shadow banking entities.
3. A possible increase in capital requirements for banks’ exposures to shadow banking entities (e.g., inclusion of investments in funds).

The Basel Committee on Banking Supervision (BCBS) only presented regulatory proposals on areas 2 and 3 above in the course of 2013, in its consultative documents on the “Supervisory framework for measuring and controlling large exposures” and the “Capital requirements for banks’ equity investments in funds”.11 Although final rules for both areas were supposed to be available by the end of 2013, only standards for the capital requirements for banks’ equity investments in funds were presented in mid-December.12 The draft consultative document on prudential consolidation of shadow banking entities announced for the fourth quarter of 2013 has not yet been published either.

This does not, however, mean that we are just at the start of indirect regulation of shadow banking. Beyond the FSB approach to regulating shadow banking, the requirements for banks in regard to their transactions with shadow banking entities and the accounting rules for consolidation of these transactions were tightened beforehand both in the EU and the US.

In July 2009, for example, the BCBS adopted tougher regulation (Basel 2.5) containing, in particular, higher securitisation and resecuritisation capital requirements for banks. Since then collateralized debt obligations (CDOs), based on asset-backed securities (ABSs), have been subject to a higher risk weight.

Indirect regulation was also introduced through an amendment of the accounting rules on consolidation by both the International Accounting Standards Board (IASB) in Europe and the Financial Accounting Standards Board (FASB) in the US.

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12) FSB and IOSCO only launched consultation on this aspect in January 2014 www.financialstabilityboard.org/publications/r_140108.pdf
Standards Board (FASB) in the US. And, finally, the various initiatives for structural reform of the banking sector have had an impact on the ties between regular banks and shadow banking entities.

**EU**

In the EU, these recommendations for regulatory measures were taken up as follows: the large exposures regime was amended by the Capital Requirements Regulation (CRR) to incorporate special reporting requirements for lending to shadow banking entities. Banks are, for example, required to provide full and precise information to supervisors on their ten largest exposures to unregulated financial entities. What is more, the European Banking Authority (EBA) will examine by the end of 2014 whether tighter large exposure limits would be appropriate for shadow banking entities and draft corresponding guidelines.

The focus of the changes to accounting standards was on improving transparency. This is to be achieved through balance-sheet consolidation of banks’ exposures to shadow banking entities and expanded disclosure requirements for non-consolidated structured entities. The changes to International Financial Reporting Standards (IFRSs) 10, 11 and 12, whose application is mandatory in Europe from 2014, serve this purpose. In 2010, the IASB also amended IFRS 7 to tighten the requirements for disclosure in the notes of any transfer of financial assets to off-balance-sheet positions. These measures helped to significantly enhance transparency for investors and supervisors on the risks incurred by regular banks in shadow banking.

In addition, CRD III introduced tighter capital requirements for securitisation in the EU, implementing corresponding BCBS proposals of July 2009. In Pillar 2, CRD III also calls on supervisors to introduce reputational risk for complex securitisation.

Different approaches to structural reform of the banking sector are being pursued within the EU. The Liikanen Report, for example, proposes that banks should not be allowed to furnish credit guarantees or hold uninsured credit exposures to hedge funds (including prime brokerage for hedge funds), SIVs and other similar shadow banking entities or to make private equity investments. It recommends transferring these activities to economically independent financial trading institutions that are required to refinance themselves completely separately from the bank. The European Commission presented a regulatory proposal reflecting these ideas at the end of January 2014. Similar legislation has already been passed in Germany and France on the basis of the Liikanen Report. Likewise, in the UK, implementation of the Vickers Report will restrict ties between regular banks and shadow banking entities.

**US**

In the US, indirect regulation took the form firstly of changes to the accounting rules on consolidation. The aim was tighter treatment of implicit support by shadow banking entities, along with higher risk-weighting of exposures to shadow banking entities and limitation of regular banks’ exposures to shadow banking entities by type and size.

The reform of the accounting rules was implemented by the FASB in June 2009 through the introduction of Financial Accounting Standards (FASs) 166 and 167. These forced banks to hold the great majority of SPVs and conduits on their own balance sheets, with the resulting effect on capital requirements and leverage ratios. Where non-consolidated entities are concerned, Section 165(k) of the DFA stipulates that certain off-balance-sheet activities have to be taken into account in computing a bank’s capital requirements.

Section 165 of the DFA also limits exposures between regular banks and shadow banking entities. For bank holding companies and non-bank SIFIs with more than $500 billion in total assets, a Fed implementation proposal of December 2011 stipulates that the net
exposure to a bank with more than $500 billion in total assets or to a non-bank SIFI of any size may not exceed 10% of capital.

A less restrictive single counterparty exposure limit (25% of capital) is to apply to smaller banks with between $50 billion and $500 billion in total assets and non-bank SIFIs. The Fed was expected to finally implement the limits at the end of 2013 or in the first quarter of 2014.

Lastly, Section 619 of the DFA (Volcker Rule) provides for structural reform of the banking sector. Its aim is to separate banks’ “safe” deposit-taking business and “risky” trading activities. Besides banning proprietary trading, the Volcker Rule prohibits banks from owning, investing in, or sponsoring hedge funds and private equity funds. More than three years after adoption of the DFA, the Volcker Rule has still to be implemented. Separating proprietary trading and market making, which banks will still be permitted to conduct, has proved more difficult than originally anticipated. On 10 December 2013, US supervisors agreed on regulation, although it will not be implemented – as planned – in July 2014 but only twelve months later. Nonetheless, this proposed regulation has already had consequences for banks. The trading desks of big US banks have all been closed in the meantime or moved to hedge funds, which are still allowed to engage in proprietary trading.

Assessment
Indirect regulation of shadow banking through tighter regulation of regular banks pursues a multi-pronged approach: firstly, reforming accounting to reduce the scope that banks have for influencing the size of their balance sheets by using shadow banking entities; secondly, raising the capital requirements for transactions with shadow banking entities; thirdly, limiting the size of exposures to shadow banks. On top of this, riskier banking activities are to be separated from supposedly safe deposit-taking business by reforming the structure of banks.

While indirect regulation undoubtedly helps to improve transparency and curbs incentives to operate risky business models, such an approach also meets with serious reservations at the same time. There is no denying the danger that tighter regulation of regular banks may trigger a migration of business to the shadow banking sector. So excessive indirect regulation may cause shadow banking to grow and unintentionally result in systemic risks moving from the regular banking to the shadow banking sector.

It should also be borne in mind that inadequate international coordination of reforms may produce competitive imbalances. That certainly goes for the different approaches pursued under regional plans for structural reform of the banking sector (Vickers, Volcker, Liikanen). On top of this, there is the problem that overlapping extraterritorial effects of these reforms impose a multiple burden on banks.

13) See analysis of Fed proposal to implement Section 165 for US financial institutions; www.davispolk.com/sites/default/files/files/Publication/459bb8b4-3bdf-4411-b245-5262b793d083/Preview/PublicationAttachment/811fc1a8-ab09-4fb4-aaed-58e0f7d315f/122311_Summary_Federal_Reserve_Proposed_Rules.pdf (p. 7 ff.). Neither this proposal for implementation nor that for foreign banks has yet been finalised. In view of the flood of protests, it is conceivable that the 10% limit may be eased/raised.
While the efforts to adopt reforms to indirectly regulate shadow banking create an impression of uniformity at first glance, with the FSB, EU and US embracing the same macroeconomic premises, there are likely to be major differences in some cases when it comes to the detail. For example, though the accounting reforms on either side of the Atlantic are inspired by the same idea, there are still divergences between US Generally Accepted Accounting Principles (GAAPs) and IFRSs, so that the rules on consolidation of SPVs are not completely identical.
Workstream II: Money market funds

Until the financial crisis, institutional investors in particular considered money market funds a risk-free alternative to a bank deposit account (a place for “parking” money). The funds invest their clients’ deposits, which are withdrawable on demand, in high-quality securities in the money market. In addition, money market funds are normally backed by a guarantee from their parent company. Money market funds are thus archetypal shadow banking entities and the most comparable with regular banks. Money market funds are, nevertheless, inherently structurally unstable since they neither have access to central bank money nor are affiliated to a deposit protection system.

This instability was revealed in the financial crisis when depositors began to lose confidence in the quality of the securities in which money market funds had invested. There were also growing doubts about the value of the guarantees from funds’ parent companies. These doubts led to a run by depositors on money market funds. As a result, the US Treasury had to issue a guarantee and the Fed had to open up access to central bank money.

In response to these events, it was decided to tighten the regulation of money market funds in order to avoid a repeat of such a run in the future. In October 2011, the FSB asked IOSCO to develop policy recommendations. April 2012 saw IOSCO publish a consultation document, which was followed in October 2012 by a final report setting out its recommendations.14)

To distinguish money market funds from other investment funds, IOSCO defined money market funds as “Investment funds that seek to preserve capital and provide daily liquidity, while offering returns in line with money market rates”. To avoid regulatory arbitrage, IOSCO recommends that supervisors also closely monitor investment funds which offer similar financial services.

IOSCO suggests the following policy measures:

- Money market funds should hold a minimum amount of liquid assets to strengthen their ability to face unexpected redemptions and prevent fire sales.
- They should conduct periodic stress tests.
- They should have adequate tools in place to manage outflows of deposits in periods of market disruption (e.g. temporary suspensions of withdrawals).
- Investments by money market funds should be confined to high-quality, low-duration instruments and clear limits should be imposed regarding the average remaining maturity of portfolios.

Since money market funds which offer investors a constant net asset value (CNAV) proved particularly susceptible to runs during the financial crisis, public interest is focused primarily on the recommendations for this type of fund. Though IOSCO calls in its recommendations for restrictions on CNAV money market funds, it does not suggest an outright ban. It does, however, recommend that funds switch to a variable net asset value (VNAV) model “where such a move is workable”. Money market funds wishing to retain CNAV should be subject to additional restrictions.

In the EU, the UCITS Directive regulated money market funds even before the outbreak of the financial crisis. This directive covers the entire investment fund sector, however, and is not specifically designed for money market funds. For this reason, the Committee of European Securities Regulators (CESR, the predecessor of the European Securities and Markets Authority – ESMA) issued non-binding guidelines to establish common standards for money market funds in May 2010. These took effect in July 2011 and set out a common definition of money market fund and introduced stricter standards for the quality of fund portfolios, maturities, risk management, disclosure requirements and the use of CNAV. In addition, the guidelines make a distinction between short-term money funds, which may use either CNAV or VNAV, and longer-term money market funds, which must have a VNAV.

June 2012 saw the ESRB publish an occasional paper on money market funds. Its authors call for a ban on CNAV in the EU, the introduction of NAV buffers and detailed liquidity standards. The paper also recommends indirect regulation: banks should only be permitted explicit sponsoring and be subject to corresponding capital requirements.\(^\text{15}\)

In July 2012, the European Commission issued a consultation document on UCITS.\(^\text{16}\) The proposed measures are closely based on IOSCO’s recommendations and proposals by the SEC, and envisage capital buffers, redemption restrictions, and restrictions or a ban on CNAV. This was followed in September 2013 by a Commission proposal for a Regulation on Money Market Funds\(^\text{17}\). The proposal envisages a general obligation to apply for authorisation as a UCITS or AIF, and detailed requirements for products. Money market funds will only be permitted to invest in certain types of product (Article 8 ff.), such as money market instruments, deposits, derivatives and reverse purchase agreements. There are also diversification requirements aimed at avoiding concentration risk and rules concerning credit quality. These measures are accompanied by extensive risk management and valuation rules (Article 21 ff.). Special requirements will have to be met by money market funds wishing to use the CNAV method. The proposal does not envisage prohibiting CNAV money market funds, as recommended by the ESRB. But they will have to maintain an NAV buffer of at least 3% of the total value of their assets. This is so that funds will always be in a position to make up the difference between the guaranteed CNAV and the real value of an asset. The buffer has to take the form of cash. Additional external support for CNAV money market funds will not be permitted. Market participants have strongly criticised this requirement on the grounds that it would no longer be viable to operate CNAV money market funds under such conditions. They consider the proposal tantamount to an outright ban on this type of money market fund.

In the US, it was decided in the light of the financial crisis that there was a pressing need for regulation of money market funds. As early as January 2010, the SEC introduced amendments to Rule 2a-7 of the Investment Company Act of 1940.\(^\text{18}\) These changes were intended to improve the liquidity and quality of money market fund portfolios. They included restrictions on permissible investments, a shortening of maturities and new liquidity requirements. Money market funds were also required to undergo stress tests for the first

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\(^{15}\) www.esrb.europa.eu/pub/pdf/occasional/20120622_occasional_paper_1.pdf?65145691e33d9a4e940d5c9bab643f0d
\(^{18}\) www.sec.gov/rules/final/21837.txt
time. The new Rule 22e-3 allowed money market funds to suspend redemptions.\textsuperscript{20} To avoid moral hazard, further legislation was passed restricting state support for money market funds in the future.

Subsequent developments in the US regulation of money market funds shed light on the difficulty of implementing the FSB/IOSCO proposals consistently across the globe. In spring 2012, a majority of SEC commissioners rejected IOSCO’s interim report on the grounds that it was not compatible with the view of the SEC. At the end of August 2012, Chairman Mary Schapiro announced there would be no public consultation on proposed new regulation because the proposal had failed to obtain the support of a majority of commissioners.\textsuperscript{20} The rejected proposal envisaged prohibiting CNAV money market funds or, alternatively, requiring them to maintain cash reserves to deal with unexpectedly large-scale redemption requests. At the end of September 2012, Treasury Secretary Tim Geithner responded by asking the FSOC to draft policy recommendations for the SEC under Section 120 of the DFA. These recommendations were published in mid-November 2012 for public comment.\textsuperscript{21} The FSOC proposed three reform alternatives.

- Alternative one: mandatory conversion to variable NAV money market funds.
- Alternative two: to retain CNAV but introduce an NAV buffer of 1% of total assets to absorb day-to-day fluctuations. The buffer would be paired with a minimum balance at risk (MBR) requirement (3% of a shareholder’s highest account value in excess of $100,000 during the previous 30 days would only be redeemed on a delayed basis). The aim was to reduce the incentive to redeem swiftly during periods of market unrest.
- Alternative three: to tie CNAV to a 3% NAV buffer.

The weakness of Section 120 of the DFA is that the SEC, which has already rejected the idea of regulation, is not obliged to adopt the FSOC’s recommendations. In June 2013, the SEC nevertheless published the following policy proposals for consultation.\textsuperscript{22}

- Alternative one: to amend Rule 2a-7 and require prime institutional money market funds to switch from CNAV to variable NAV. Government money market funds would be exempt.
- Alternative two: to allow money market funds to retain CNAV as long as they introduce a liquidity fee and delay redemptions in times of stress.

Although the SEC’s proposal did not go nearly as far as that of the FSOC, responses to the consultation showed the issue to be highly contentious. It is not clear at present whether the proposed changes will be implemented.

**Assessment**

Recent years have seen some consolidation in the industry. Money market funds have become bigger and more closely interconnected than was the case before the financial crisis. It must therefore be assumed that systemic risk continues to exist, raising the question as to the most appropriate regulatory response. Both the US and the EU began by tightening the rules on the composition of portfolios. Proposed measures also cover NAV buffers, a ban on CNAV, redemption restrictions and risk retention for investors. These proposals...
have proved controversial on both sides of the Atlantic. Major political bodies such as the European Parliament, the German and French governments and the US Federal Reserve Board have called for more stringent regulation, including a general ban on CNAV money market funds. At the same time, however, there are serious differences between the EU and US policy proposals. The introduction in the EU of an NAV buffer, in particular, could lead to competitive disadvantages. The risk of regulatory arbitrage in this important market segment for short-term debt cannot be ruled out if the differences in regulation persist.

The declared objective of regulating money market funds is to avoid a repeat of the 2008 run. The proposals put forward in Europe and the US should consequently be judged primarily on their ability to achieve this objective.

NAV buffers and a ban on CNAV would only do so to a limited extent because they fail to address the main problem of a run in the financial sector – namely the first-mover advantage. Though a capital buffer would make a money market fund more resilient, it would not reduce the incentive for investors to withdraw their money as quickly as possible if a crisis seemed to be in the offing. The same applies to mandatory conversion from CNAV to VNAV. While investors would lose money if the value of their shares in the fund fell below par, those who reacted first would still lose least in the event of a run. VNAV money market funds nevertheless have the advantage of making it clear to investors that a money market fund is not a substitute for money, or in other words is not risk-free.

The first-mover advantage could only be addressed by a minimum balance at risk. This alone would act as a disincentive because the investors who moved first to withdraw their funds would suffer a financial disadvantage.

The need for greater regulation of money market funds is beyond question. Those in positions of political responsibility should, nevertheless, take care to ensure that measures do not drive investments into less regulated and less transparent market segments. It would be desirable to try to increase the compatibility of regulation in the US and EU in the course of the legislative process.
Workstream III: Other shadow banking entities

Regulation of shadow banking would be incomplete without regulating shadow banking entities themselves. Yet this task has proved remarkably difficult. First, shadow banking entities other than money market funds are extremely diverse and innovative. In addition, their form varies widely depending on the national legal framework in which they operate. But another key factor making regulation so difficult is that, in shadow banking, it is not the institutional form but the activity carried out which determines what kind of regulation is required. Merely regulating familiar legal forms of shadow banking entities would therefore not go far enough, since entities could change their organisational form and swiftly find new ways of performing the same activities, which would still carry the same systemic risk. The FSB is also aware of this problem and has responded by developing a strategy which targets economic functions. It is due primarily to the difficulties outlined above that the FSB’s recommendations in this area were published only in August 2013.23)

Publication was preceded by extensive analysis of shadow banking. Drawing on a large collection of data, the FSB began by categorising a number of different non-bank financial entities. These were then prioritised to narrow the scope to those judged to require regulation. This process produced the following list of shadow banking entities:

1. Credit investment funds
2. Exchange-traded funds (ETFs)
3. Credit hedge funds
4. Private equity funds
5. Securities broker-dealers
6. Securitisation entities
7. Credit insurance providers/financial guarantors
8. Finance companies
9. Trust companies

These shadow banking entities were still extremely heterogeneous, however, with highly diverse business models and risk profiles not only across different categories of shadow banking entity, but also within each entity type. This heterogeneity was exacerbated by different legal and regulatory frameworks across jurisdictions and by the continuous process of innovation in the shadow banking industry.

The prospects for regulation on this basis did not seem promising. The FSB therefore analysed the activities undertaken by shadow banking entities and developed an activity-based approach. This allows a non-bank financial entity’s involvement in shadow banking to be judged and regulated by examining its economic functions rather than the entity itself or its legal form. A further advantage of this approach is that it will be possible to capture new types of entity that conduct these economic functions and thus generate systemic risk.

The five economic functions identified are:

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

23) www.financialstabilityboard.org/publications/r_130829c.pdf
These economic functions are the first element of the FSB’s proposed policy framework for shadow banking entities. Their objective is to enable supervisors to identify the sources of shadow banking risks in non-bank financial entities from a financial stability perspective.

The second element is a “framework of policy toolkits” consisting of four overarching principles (see table) and a toolkit for each economic function. These tools are intended to enable supervisors to mitigate the systemic risk associated with each economic function.

The third element is information sharing among supervisory authorities through the FSB process, with the aim of ensuring consistency across jurisdictions when applying the policy framework.

Although the FSB’s recommendations were unveiled only in August 2013, both the US and the EU had already adopted measures to regulate shadow banking entities.

EU

Following the outbreak of the financial crisis, the European Commission took steps relatively quickly to regulate previously unregulated financial institutions. As early as June 2011, the Alternative Investment Fund Managers Directive (AIFMD) introduced harmonised rules for institutions which managed and administered such funds.24) Since July 2013, these rules have had to be applied to all hedge funds, private equity funds and other investment funds.

To obtain authorisation to operate within the EU, an alternative investment fund manager has to satisfy various conditions relating to capital, risk and liquidity management, the choice of depository, and transparency vis-à-vis supervisors and investors. The use of leverage by AIFMs is carefully monitored. If supervisors consider that a fund’s leverage is high enough to pose a systemic risk, they can impose restrictions on the leverage level on the recommendation of ESMA.

<table>
<thead>
<tr>
<th>Overarching principles</th>
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<tr>
<td><strong>Principle 1</strong></td>
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<td><strong>Principle 2</strong></td>
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<td><strong>Principle 3</strong></td>
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<tr>
<td><strong>Principle 4</strong></td>
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</tbody>
</table>

Source: Financial Stability Board.

US

The US responded very swiftly and comprehensively to the financial crisis by passing the Dodd-Frank Act. Partly because the DFA was drawn up before the FSB formulated its proposals on shadow banking, the act does not deal explicitly with shadow banking entities, but addresses the entire non-bank financial sector. Though the DFA covers certain elements of shadow banking as described by the FSB, its approach is much broader.

Regulation of non-bank financial institutions in the US takes place in a totally different context to that suggested by the FSB. The Dodd-Frank Act empowers the FSOC to define non-bank financial companies and non-bank financial activities as systemically important and to regulate them accordingly. To date, the FSOC has concentrated on identifying systemically important companies while largely disregarding activities. This approach is primarily due to the fact that the FSOC has limited authority to change activities since it can only submit non-binding proposals for change to other regulators or to Congress. This problem was all too evident in the regulation of money market funds.

Under Section 113 of the DFA, by contrast, the FSOC can require increased oversight and regulation of a non-bank company by the Federal Reserve Board if the council believes the company to be systemically important. Section 106 of the act defines non-bank financial companies as all domestic and non-US financial companies that are not registered in the US as bank holding companies.

April 2012 saw the FSOC set out a three-stage assessment programme for designating non-bank SIFIs. The first stage identified companies with at least $50 billion of total assets and either more than $30 billion in gross notional CDSs outstanding for which the company was the reference entity, or more than $3.5 billion in derivative liabilities, or more than $20 billion of total debt outstanding, or a leverage ratio exceeding 15:1.

In the second stage, the FSOC analysed the risk profiles of companies that met the stage one criteria. The analysis was based on factors such as substitutability, interconnectedness, leverage, liquidity risk, maturity mismatch and the existing level of regulatory scrutiny.

Any non-bank financial company which the FSOC considered in need of further review was contacted and had 30 days to respond to the FSOC’s analysis. At the end of this process, the FSOC decided whether or not the company should be classified as a non-bank SIFI. In summer 2013, the FSOC named three non-bank SIFIs (AIG, GE Capital and Prudential Financial). In summer 2013, the Office of Financial Research published a report examining the systemic importance of large asset management funds. Firms such as BlackRock will therefore probably be designated non-bank SIFIs in due course.

Sections 165 and 166 of the DFA require the Federal Reserve Board to develop enhanced prudential standards and early remediation requirements both for bank holding companies with total assets exceeding $50 billion and for non-bank SIFIs. At the end of 2011, the Federal Reserve Board published a rule intended to put these requirements into practice. This rule envisages generally treating bank holding companies and non-bank SIFIs in the same way. Certain variations may nevertheless be specified. The rule has not yet been implemented.

27) www.treasury.gov/initiatives/ofr/research/Documents/OFR_AMFS_FINAL.pdf
This would mean that non-bank SIFIs would be subject to the same capital and leverage requirements as those applying to banks. Section 165d of the DFA requires every non-bank SIFI to submit a resolution plan to the Federal Deposit Insurance Corporation (FDIC) and the Federal Reserve Board.

**Assessment**

In the US, the policy framework for non-bank SIFIs is therefore being organised by applying regulatory requirements for banks to the non-bank financial sector. This rather unusual approach to dealing with shadow banking entities can mainly be explained by the fact that the DFA was drawn up as a rapid response to the financial crisis.

The DFA’s strategy for non-bank SIFIs also envisages that, once a company is identified as a non-bank SIFI, it will be treated by supervisors like a bank. Irrespective of the existing supervisory structure, non-bank SIFIs will automatically be subject to oversight by the Federal Reserve Board. The already convoluted structure of US financial market supervision is thus likely to become even more confusing. The Federal Reserve Board has no experience of supervising non-banks, so conflicts with the responsible specialist supervisory bodies cannot be ruled out.

By contrast, the approach taken by the FSB and the EU seems much more methodical. Unlike in the US, those responsible began by analysing the potential risks emanating from shadow banking, and only then went on to draft regulation. In the AIFMD, the EU has created a dedicated instrument for regulating shadow banking entities, among other things. The directive sets out capital, liquidity and leverage requirements along the lines of the Basel framework for banks, but tailored to AIFMs.

The FSB’s proposals go far beyond the already adopted requirements for shadow banking entities. Owing not only to the diversity of shadow banking entities, but also to differences in legal regimes and, not least, to growing political resistance, the recommendations are totally non-binding. It will therefore be down to each individual jurisdiction to act on the FSB’s recommendations and incorporate them into national legislation. It will also be interesting to see whether the exchange of information between supervisors will prove an adequate instrument for avoiding damaging regulatory divergence.
Workstream IV: Securitisation

Securitisations are an important source of funding for financial institutions and other businesses. They are an efficient way of diversifying risk. During the financial crisis, however, some serious problems emerged, such as flawed credit-granting processes (a result of the originate-to-distribute strategy), excessive reliance on credit ratings, a failure by investors to exercise due diligence, inadequate pricing of risk and an overall lack of transparency.

The FSB was therefore right to place securitisations on its agenda for regulating the shadow banking sector. But measures had already been taken both in Europe and the US even before the FSB received its mandate from the G20. In July 2011, the FSB, in cooperation with the BCBS, asked IOSCO to take stock of regulatory projects on risk retention, improving transparency and standardising securitisation products. If necessary, policy recommendations should then be drafted. The recommendations put forward by IOSCO in its final report of November 2012 are thus largely based on regulation that was already in place.28)

Risk retention
Immediately after the outbreak of the crisis, risk retention was already considered a possible way of providing better incentives to assess adequately the risks associated with securitisations.

EU
CRD II,29) which took effect at the end of 2010, requires financial institutions to check whether the originator or sponsor of a transaction has retained at least 5% of the securitised exposure. Requirements similar to those for financial institutions in CRD II were also applied to insurance companies (Solvency II), alternative investment fund managers (AIFMD) and collective investment funds (UCITS Directive).

In CRD III,30) increased capital requirements were introduced for risks resulting from securitisations. This goes especially for resecuritisations. Regulatory requirements for guarantees to support securitisation vehicles were also made more stringent.

In its communication on shadow banking regulation of September 2013, the European Commission stresses that the regulatory framework for securitisations in the EU is in line with the recommendations issued by IOSCO in November 2012.31)

US
The US is seeking to regulate securitisation through Section 941 of the DFA and Section 15G of the Securities Exchange Act of 1934 (Exchange Act). Rules proposed in March 2011 were not enacted, however. A revised proposal unveiled in August 2013 envisages giving sponsors of securitisations a broader menu of permissible options for meeting risk retention requirements.32) A risk retention requirement for ABS transactions is proposed.33) The sponsor of a securitisation would have to retain at least 5% of the credit risk of the securitised assets. In the US, therefore, the retention requirement is imposed directly on the sponsor.

Disclosure requirements
Enhanced standards for disclosing the underlying exposures in a securitisation and the cascading effect between tranches have the potential to help restore investor confidence. The provision of additional information will also reduce reliance on external ratings.

Extensive disclosure requirements have long existed in both the US and the EU, or were introduced in the regulation drafted in the wake of the financial crisis.

EU
First, the Prospectus Directive contains specific requirements relating to the issuance of ABSs in regulated markets. The directive also requires a description of cash flows.

Under CRD II, a financial institution may only invest in a securitisation if it can demonstrate that it completely understands the associated risk characteristics. Any issuer wishing to sell a securitisation to a financial institution consequently has to make sufficient information available in advance to enable the investor to satisfy the requirements of CRD II. As this directive requires investors to demonstrate their understanding of the risks over the entire life of the securitisation, issuers have to disclose the relevant information on an ongoing basis.

In addition, CRD II requires financial institutions which invest in securitisations to conduct regular stress tests. All these requirements also apply to insurance companies under Solvency II and alternative investment fund managers under the AIFMD.

US
In the US, Regulation AB, which took effect in 2004, contains detailed disclosure requirements for ABS issuers both when an ABS is issued and on a regular basis thereafter. On top of that, rules issued by the SEC require issuers of ABSs to provide information about expected cash flow, including agreed priorities and credit enhancement. All fees and expenses paid from cash flow have to be disclosed on an ongoing basis.

Under the revised Section 15(d) of the Exchange Act, ABS issuers have to ensure ongoing disclosure over the entire term of the securities. In addition, the SEC has proposed that standardised information should be disclosed about individual assets of the ABS. Furthermore, the proposed Regulation AB II envisages a requirement for issuers of securitisations to develop a computer program that will enable investors to check disclosures about cash flows.

Initiative to standardise reporting requirements
The ABS loan-level initiative of the ECB and the Bank of England has helped to standardise information requirements further and create greater data transparency. The requirements have been in effect since January 2013 for residential mortgage-backed securities (RMBSs) and ABSs backed by SME loans, and since March 2013 for commercial mortgage-backed securities (CMBSs). For all other types of securitisation, the reporting requirements took effect at the beginning of 2014.

Assessment
When seeking to regulate securitisation markets, it should be borne in mind that they are highly heterogeneous at both national and global levels. Securitised assets and forms of issuance differ within and between jurisdictions. Since securitisations are frequently issued on a cross-border basis, national rules and regulations need

34) www.sec.gov/interps/telephone/cftelinterps_regab.pdf
35) www.sec.gov/about/laws/sea34.pdf
to be compatible with one another in order to support market integration and avoid competitive distortion.

The regulation of securitisation will help to restore confidence if the standards set are met by market participants and succeed in eliminating the perverse incentives that arose during the crisis.

A comparison of risk retention requirements in the EU and US shows they take different approaches. While the US requirement obliges the originator or arranger of a securitisation to retain a portion of the risk, the EU rule prohibits investors from investing in transactions where no risk has been retained. According to IOSCO’s analysis, differences in the regulatory approach can have a significant influence on some cross-border transactions. EU requirements, for instance, apply to all securitisations, irrespective of the jurisdiction in which they originate.

Yet IOSCO did not find evidence of material incompatibilities between regimes. This is due, among other things, to the existence of sufficient overlap in the range of permissible ways to satisfy the risk retention requirement. This enables the originator of a securitisation to meet the regulatory prerequisites on both sides of the Atlantic. IOSCO nevertheless proposes a roadmap towards international alignment of the rules on risk retention.
Workstream V: Securities lending and repos

Securities lending and repo transactions are used in many different ways in the financial markets. They are indispensable instruments for refinancing banks, funding companies and ensuring liquidity. What is more, they are a fundamental element of the transmission mechanism of monetary policy. Any regulation targeting shadow banking in this area therefore needs also to consider the use of securities lending and repos outside shadow banking. Otherwise, the smooth functioning of financial markets could be unintentionally impaired.

The FSB’s publications indicate that the authors are well aware of the complexity involved in the task of regulating securities lending and repos. In April 2012, an interim report was published describing and categorising the global markets for securities lending and repo transactions. This was followed in November 2012 by an initial consultative document. The approach taken by the FSB was to identify the risks to financial stability which can arise from repos and securities lending, and, at the same time, set out policy recommendations for addressing these risks.

Conscious that repo markets have a fundamental importance for the financial system as a whole, the FSB sought from the outset to avoid disruption. To this end, the first part of a two-phase quantitative impact study (QIS) was launched in April 2013. The final policy recommendations, together with consultative proposals for the introduction of minimum haircuts, were unveiled at the end of August 2013. The second QIS, which followed in November 2013, was conducted to assess the impact of these proposals.

The FSB’s recommendations can be divided into three broad categories:

1. Improvements in transparency
2. Regulation of securities financing
3. Structural aspects of the securities financing markets

To address one of the most important problems of regulating securities lending and repos – namely the lack of available data – the FSB has created a new group of data experts. Market participants and the FSB continue to disagree on the question of introducing minimum haircuts. For this reason, a fresh round of consultation was carried out until the end of November 2013, and the FSB’s final proposals on minimum haircut standards are scheduled for release in spring 2014.

The FSB believes that the following risks to financial stability can arise in securities lending and repo markets, and that regulation is therefore needed to mitigate these risks.

Pure shadow banking risks
- Repos create money-like liabilities, facilitating credit growth and maturity and liquidity transformation outside the banking system.
- The reinvestment of cash collateral from securities lending transactions gives rise to liquidity and leverage risks.

Risks that span regular banking and shadow banking
- Tendency of securities financing to increase procyclicality in the financial system
- Risk of a fire sale of collateral

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37) www.financialstabilityboard.org/publications/r_120427.pdf
38) www.financialstabilityboard.org/publications/r_121118b.pdf
- Risks arising from rehypothecation, which is defined as the reuse of client assets
- Increased interconnectedness arising from chains of transactions involving the reuse of collateral
- Inadequate collateral valuation practices

To enhance transparency, the FSB suggests that supervisory authorities should significantly increase the amount of data collected about repos and securities lending. Data collection should take place at trade level and use should be made of the data held by central security depositories (CSDs) and CCPs. The FSB intends to consolidate the data collected at national level and provide a global overview, which will contain information about the size of the market, the composition of collateral and haircut ranges.

The Enhanced Disclosure Task Force (EDTF) is to work on improving public disclosure of securities lending and repo activities. In addition, the FSB recommends more stringent requirements for reporting by fund managers to end-investors.

The policy recommendations also cover cash collateral and rehypothecation. The FSB would like to set minimum standards for the reinvestment by non-banks of cash collateral from securities lending. The authorities responsible for supervising these entities would implement the standards. The need for action differs quite widely from one jurisdiction to another, however.

Definitions are suggested for the terms “reuse” and “rehypothecation” in the context of securities. The FSB sees a need for additional safeguards on rehypothecation. The basic objective is to ensure clients have sufficient information to understand the extent of their exposure in the event of an intermediary experiencing financial difficulties. Certain limitations on the permissible uses of rehypothecated assets are under consideration, as is the idea of allowing only entities subject to liquidity risk requirements to engage in the rehypothecation of client assets. The FSB also recommends setting up a group of experts to examine how client assets can best be protected.

On the issue of reuse, the FSB suggests introducing minimum haircuts. A methodology for calculating these haircuts has not yet been agreed, however. The public consultation on the issue concluded at the end of November 2013. The purpose of the minimum haircuts is to avoid the possible procyclical effects of reuse.

The FSB also proposes minimum standards for the valuation and management of collateral by all securities lending and repo market participants.

Finally, the FSB draws attention to the benefits of central clearing, especially in the inter-dealer repo market, and calls on supervisors to consider the potential advantages and drawbacks of introducing CCPs in other market segments. Despite current discussions about changing bankruptcy law or creating repo resolution authorities (RRAs), the FSB believes that priority should not be given to these issues at present.

EU

In its communication on shadow banking, the European Commission acknowledged the need for greater transparency and more data. The Commission is closely following an ECB initiative to set up a central repository to collect detailed data on repos in the EU. The first step will be to identify what data are needed to monitor these transactions and analyse the data already available. The Commission is committed to seeing the FSB’s recommendations implemented in Europe.

The European Commission is also looking at the potential problems associated with rehypothecation and reuse. Work on a legislative solution is currently underway and could be incorporated into the planned Securities Law Legislation. Publication of a Securities Law proposal has been repeatedly postponed, however, and it is not clear at present when the proposal will be unveiled.
US

The tri-party repo market is extremely important in the US. A key element is the uncollateralised intraday credit provided by the market’s clearing banks. This proved a source of weakness during the financial crisis. The three main problems were:

- overreliance by market participants on intraday credit from the clearing banks;
- risk management practices that were vulnerable to procyclical pressures;
- the lack of a transparent process for the orderly liquidation of a defaulted broker-dealer’s collateral.

To eliminate this shortcoming and ensure the stability of the tri-party repo market, the Fed created a Tri-Party Repo Infrastructure Reform Task Force. In May 2010, the task force published a white paper whose recommendations for solving the problem were to be implemented by the end of 2011. This objective was not achieved.39)

The task force eventually issued a final report in February 2012 and the Fed stepped up its supervision of market participants. The Fed’s objective is that market participants should dispense with intraday credit from the clearing banks altogether. Although some progress has now been made – market participants are increasingly managing to coordinate their trades in such a way as to significantly reduce the length of intraday borrowing – this target has not yet been reached. The usage of intraday credit at present has declined to around 30% of the volume before the crisis and is to be reduced to 10% by the end of 2014. To this end, J.P. Morgan Chase and the Bank of New York Mellon (BNYM), the two clearing banks, will continue to make major changes to their clearing processes. The Fed also expects dealers and investors to make changes to their business processes so that the objective can be met.

Another concern of the task force is to increase the transparency of the tri-party repo market. For this purpose, it publishes a monthly report detailing the size of the market, the composition of collateral and margining practices. These reports are compiled in close cooperation with the clearing banks, the Fixed Income Clearing Corporation (FICC) and the lenders and borrowers involved.

Assessment

Both for banks and for other market participants, securities lending and repo transactions are an important means of securing liquidity. Their importance will grow further as a result of recent regulation such as the new capital requirements and new rules for derivatives. This will further boost the demand for highly liquid, high-quality assets needed, in particular, to satisfy collateralisation requirements (CCP clearing, OTC derivative transactions). At the same time, however, the available volume of assets recognised as liquid by regulators and the market will tend to decline.

Before further measures can be taken, better information is needed about the scale and structure of the repo and securities lending markets. It will be important to avoid gathering data indiscriminately and instead concentrate in both the breadth and depth of collection on data that will yield information about systemic risk. If sufficient transparency can be created in this way, the next steps towards regulation can then be tackled.

Given the differences between legal systems, implementing the FSB’s policy recommendations is likely to prove difficult, especially those concerning 39) www.newyorkfed.org/banking/trp_infr_reform.html
rehypothecation and reuse. As yet, it has evidently not been possible to reach a consensus on how the terms “rehypothecation” and “reuse” should be used. The same goes for the key associated concept of “client assets”. Care will also need to be taken when placing restrictions on the circumstances under which assets may be rehypothecated. Not only is there a lack of clarity about what instruments should be covered, but such restrictions could also have an adverse effect on market liquidity. It is unclear at present whether regulation will consist of regulatory measures alone or will also entail substantial changes to civil law.

The rationale behind the planned introduction of minimum haircuts for repos between regulated market participants and shadow banking entities is that it will mitigate the procyclicality of repo markets. At least in the view of market participants, however, no hard evidence has yet been produced that haircuts have a procyclical effect. Since this measure would also impair the liquidity and availability of securities used in repos, the possible impact should be examined in advance. The FSB’s QIS 1 and QIS 2 were designed to do just this and should therefore contribute to the development of appropriate regulation.

The proposed minimum haircuts should be set at a level that ensures they constitute a fall-back regime. Otherwise, all market participants will be more or less forced to use the minimum haircuts instead of evaluating the risks involved themselves. In terms of optimising risk management, this would be a clear step backwards.
Annex

Table 1
The FSB approach

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>November 2010</td>
<td>G20 asks the FSB to develop policy recommendations in cooperation with IOSCO and the BCBS.</td>
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<td>April 2011</td>
<td>FSB publishes a background note and defines shadow banking. It takes the view that only certain</td>
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<td></td>
<td>elements of shadow banking require regulation.</td>
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<td>October 2011</td>
<td>FSB publishes a report setting out five workstreams for designing and implementing regulatory</td>
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<td>measures. An annual monitoring exercise is to be carried out.</td>
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<td>April 2012</td>
<td>FSB publishes its first progress report.</td>
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<td>April 2012</td>
<td>A task force publishes an interim report on securities lending and repos, including a market</td>
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<td>overview (WS V).</td>
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<td>June 2012</td>
<td>IOSCO and BCBS publish a consultation report: Consultation Report on Global Developments in</td>
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<td>Securitization Regulation.</td>
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<td>October 2012</td>
<td>IOSCO publishes its final report on money market funds (WS II).</td>
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<tr>
<td>November 2012</td>
<td>FSB publishes a consultative document on addressing shadow banking risks in securities lending and</td>
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<td></td>
<td>repos (WS V).</td>
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<tr>
<td>November 2012</td>
<td>FSB publishes a consultative document on WS III. Owing to the heterogeneous nature of shadow</td>
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<td>banking entities, the FSB rejects the idea of regulating entities and recommends regulating</td>
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<td>activities instead.</td>
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<tr>
<td>March 2013</td>
<td>BCBS consultation on large exposures (WS I).</td>
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<tr>
<td>July 2013</td>
<td>BCBS consultation on capital requirements for investments in funds (WS I).</td>
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<tr>
<td>August 2013</td>
<td>FSB publishes an overview of policy recommendations.</td>
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<tr>
<td>August 2013</td>
<td>FSB publishes recommendations for regulating securities lending and repos and consultative</td>
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<tr>
<td></td>
<td>proposals for minimum haircuts (WS V).</td>
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<tr>
<td>August 2013</td>
<td>FSB publishes recommendations for regulating shadow banking entities (WS III).</td>
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</tbody>
</table>
### November 2013
IOSCO will contribute its analysis of the global hedge fund sector to the Financial Stability Board (FSB) within the scope of the FSB’s regular shadow banking monitoring exercise so as to enhance transparency and risk monitoring.

### November 2013
FSB to publish results of its third shadow banking monitoring exercise.

### Q4 2013
FSB to conduct its comprehensive quantitative impact assessment on haircut proposals for non-centrally cleared securities financing transactions.

### End of 2013
Basel Committee on Banking Supervision (BCBS) to develop a supervisory framework for controlling large exposures (including exposures to shadow banking entities).

### March 2014
BCBS to develop internationally consistent, risk-sensitive rules for capital treatment for banks’ investments in equity of funds (including funds engaged in shadow banking).

### Q2 2014
FSB to complete recommendations on minimum standards on methodologies for calculating haircuts on non-centrally cleared securities financing transactions and for the proposed framework of numerical haircut floors.

### 2014
FSB to develop information-sharing process within its policy framework for other shadow banking entities by March 2014, start information sharing thereafter, and report its progress to the G20 finance ministers and central bank governors in late 2014.

### 2014
IOSCO to launch peer review on member states’ implementation of its recommendations regarding money market funds (2012) and report its progress to the G20 in late 2014.

### 2014
IOSCO to launch peer review on member states’ implementation of incentive alignment regimes (including risk retention requirements) and report its progress to the G20 in late 2014.

### 2014
BCBS to provide update on progress made in implementing policy reforms to mitigate risks in banks’ interactions with shadow banking entities.

### End of 2014
FSB data experts group to propose standards and processes for global data collection and aggregation regarding repo and securities lending markets.

### 2015
BCBS to report on the progress made in implementing the supervisory framework for controlling large exposures and rules for capital treatment for banks’ investment in funds.

### 2015
FSB to launch a peer review regarding member states’ implementation of its policy framework for other shadow banking entities. Based on the findings, the FSB should evaluate the case for developing further policy recommendations for relevant shadow banking entities and report the results to G20 finance ministers and central bank governors in 2015.

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**Table 2**

<table>
<thead>
<tr>
<th>G20 roadmap towards strengthened oversight and regulation of shadow banking</th>
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<tr>
<td><strong>November 2013</strong></td>
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<td><strong>Q4 2013</strong></td>
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