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Otto Lucius*

In search of financial stability – the case of shadow banking

1. Introduction

The recent financial crisis (evolving out of the subprime mortgage crisis in 2007, and then turning into a banking crisis, and lastly into a crisis of the financial system) has revealed fundamental weaknesses in the financial system. These weaknesses could easily turn into a disaster triggered by systemic risks. This was one of the reasons why the focus of regulators shifted from micro-prudential supervision to a macro-prudential view of the financial system. The phenomenon of systemically important financial intermediaries, the so-called SIFIs (Systemically Important Financial Institutions), attracted more and more attention. Recently, some authors have dealt with the new regulatory focus on systemic risk per se (Caruana 2013) or analysed the problem of SIFIs and globally systemically important banks, the G-SIBs (Knot van Voorden 2013; Mersch 2013).

With the crisis forcing governments to put substantial amounts of money into the rescue of banks, a legitimate question is if financial stability can be re-established in this way. Financial stability is not only dependent on the regulatory framework or on capital requirements imposed on the banks; it is also influenced, as convincingly demonstrated by P. Tucker (2013), by a "tendency to excessive risks" inherent to the system. This is largely due to agency problems and myopia.

A different yet very exciting topic is the complexity of regulatory work being designed. It is not without some irony that Andrew Haldane, an economist and one of the regulators responsible for designing the Basel framework, and his co-author are now calling for less complexity (Haldane and Madouros 2012). Their

* Prof. Otto Lucius is lecturer at the University of Graz and Executive Manager of the Austrian Society for Bank Research, Vienna. E-mail: lucius@bwg.at

arguments are very convincing, however the Basel III regime is not only under way, but already being implemented in the European Union. The fact that regulators are now calling for less complexity will not change that course. Anyway, reducing the complexity of the financial system itself might be an even greater challenge.

The banking sector is one of the most regulated sectors in economy, and this is likely to stay for a while until the pendulum eventually swings back. However, in the financial services industry, banks and insurance companies are not the only institutions being strongly regulated. We also face the problem of so-called shadow banks. And these shadow banks are regulated with such a light touch or not at all, so it doesn't matter anyway. Why should regulators focus their activities on shadow banking? Could it be the case that shadow banks are able to pose systemic risks to the financial industry and, thus, on the world economy overall?

This paper first gives a short introduction of systemic risk (chapter 2). It then aims to define shadow banking (chapter 3.1.) as well as to provide an answer to systemic risks related to shadow banking (chapter 3.3.). Last but not least, an overview of recent regulatory initiatives is provided (chapter 4). Chapter 5 ends the paper with some concluding remarks.

2. Systemic risk

For a long time, regulation has focussed on microprudential measures to regulate a single financial institution. The macroprudential dimension had been rather neglected. This split seems to be similar to the split economists have followed, microeconomics and macroeconomics (Caruana 2010). A lot of definitions of systemic risk are available (Caruana 2010; ECB 2010). Despite all of the differences in defining systemic risk, there are two commonalities: first, the disruption of functions in the financial system (as opposed to an individual institution) not being able to perform. The relations and interactions between the components of the system are key for stability and/or instability. This is something we should keep in mind when looking at shadow banking activities. The second commonality is the relationship between the financial sector and the real sector. Malfunctions of the financial sector might not only result in losses to portfolios, but they might also end up in the disruption of vital functions of the financial services industry (like a credit crunch), eventually resulting in missed lagging growth and lower employment rates.

J. Caruana (2013) has described two dimensions of systemic risk based on C. Borio (2003) and J. Caruana (2010); the cross-sectional dimension and the time dimension. The cross-sectional dimension refers to the way risk is distributed in

the system at a certain point of time. It is dependent on weaknesses in the organisation of markets and their infrastructure as well as to the concentration of risks in specific institutions or even segments of the financial sector (e.g., large exposures to similar risks or large bilateral counterparty exposures). Insufficient diversification across institutions may result in bulges of risk in the system as well as giving rise to vulnerabilities. Thus, even a slight exogenous shock can spread quickly through a system exhibiting such weaknesses. On the other hand, the time dimension refers to the dynamic profile of systemic risk. We may also call it procyclicality in the financial system, a phenomenon also to be observed when looking at bank regulation. In general, a boom trend in the markets leads to exuberance with highly lifted investor expectations and boosted confidence. Such boom phases lead to risky attitudes and high leverage. Imbalances that build up gradually during booms will be ignored in most cases. Therefore, any correction leading to a bust comes abruptly, with potentially disastrous consequences for the financial and real sectors. Caruana rightly points out that systemic risk in the time dimension is best understood as arising largely endogenously: the seeds of crises are sown during the boom.

Under the auspices of the Financial Stability Board, regulators are searching for ways to make the financial system more resilient as well as to minimise systemic risk. Looking at the cross-sectional dimension of systemic risk as laid out above we might succeed to minimise the possible impact of systemic risk. This holds true only if we look at the financial services industry, as it is already (heavily) regulated. But what if an exogenous shock hits the financial services industry, and this shock comes from part of the financial sector that is poorly regulated if at all? This sector is commonly called the shadow banking sector.

3. Shadow banking

The crisis revealed structural weaknesses in the regulated part of the financial services industry. And soon after, it became apparent that there is an unregulated part of the financial sector, commonly called “shadow banking”. It was the G20 that pushed regulation and oversight of the shadow banking sector. After the completion of the new capital standards for banks (the Basel III regime), G20 leaders at their Seoul Summit of November 2010 realised the potential threat of regulatory gaps emerging in the so-called shadow banking system. They therefore mandated the Financial Stability Board (FSB) to develop recommendations to strengthen the regulation and oversight of the shadow banking system (Group of 20 2010), and the G20 Cannes Summit Action Plan of November 2011 reaffirmed this mandate (Group of 20 2011).

3.1. Defining shadow banking

In starting work on its mandate, the FSB had to develop working definitions of shadow banking. Following the concept that banks mainly deal with credit intermediation (seen aside from payment system services), it was evident to base a definition of "shadow banking" on the function of credit intermediation. Thus, the FSB broadly defined the shadow banking system as "the system of credit intermediation that involves entities and activities outside the regular banking system" (FSB 2011; FSB 2013a). The ECB closely follows this definition (Bakk-Simon et al. 2012). The latest document of the EU Commission (EC 2013) is still based on the FSB definition by describing the possible shadow banking entities and activities on which the Commission is currently focussing its activities:

Shadow banking includes entities which:

– raise funding with deposit-like characteristics;
– perform maturity and/or liquidity characteristics;
– allow credit risk transfer;
– use direct or indirect leverage.

These entities may also include ad hoc entities such as securitisation vehicles or conduits, money market funds, investment funds that provide credit or are leveraged, such as certain hedge funds or private equity funds, and financial entities that provide credit or credit guarantees, which are not regulated like banks or certain insurance or reinsurance undertakings that issue or guarantee credit products.

Activities of shadow banking include in particular:

– securitisation;
– securities lending and
– repurchase (repo) transactions.

Of course, there are a lot of other definitions of shadow banking. For those interested, Deloitte provides a good overview of some widely referenced definitions (Deloitte... 2012).

The debate taking place internationally tends to see "shadow banking" as one of the triggers for financial instability. This is perhaps due to the fact that, at first glance in the time span 2007/08, the crisis did not look like a traditional banking crisis, but rather one related to a new phenomenon: shadow banking (Turner 2012). As Z. Pozsar *et al*. (2012) put it: shadow banks conduct credit, maturity and liquidity transformation similar to traditional banks. However, the decisive difference vis-à-vis traditional banks is their lack of access to public sources of liquidity (such as the Federal Reserve's discount window) or public sources of insurance (such as Federal Deposit Insurance) (Pozsar *et al*. 2012).

As one of the first, A. Tucker (2012) emphasized in a speech at the EC High Level Conference that shadow banking and non-bank credit intermediation per

se is not a bad thing. On the contrary, it can help to make financial services more efficient and effective, and it may help make the system more resilient (FSB 2012a).

Last but not least, it is worth noting that some authors claim that some governments act like shadow banks. In a paper dated September 2011, Viral Acharya looks at the hypothesis that governments often have short-term horizons and are focused excessively on the level of current economic activity. But they ignore whether their actions will lead to stable long-term growth or not. By allowing excessive competition, providing downside guarantees and encouraging risky lending for populist schemes, governments can create periods of intense economic activity fuelled by credit booms. This way, governments effectively operate as “shadow banks” in the financial sector. According to Acharya (2011), such a governmental role appears to have been at the centre of recent boom and bust cycles, and it continues to present a threat to financial stability.

Furthermore, Acharya presents as leading examples not only government-sponsored enterprises in the United States, primarily Fannie Mae and Freddie Mac. He also summarises e.g. the Landesbanken in Germany, and the Cajas in Spain, the equivalent of savings and thrift institutions, effectively being owned by local governments. These played a central role in the Spanish housing boom and painful bust, competing aggressively with commercial banks as government-sponsored enterprises (Acharya 2011).

3.2. The size of shadow banking

Due to different measuring methodologies, different numbers for the size of shadow banking can be found. For example FSB found that, according to its mapping, the global shadow banking system (as conservatively proxied by “Other Financial Intermediaries”) grew rapidly before the crisis, rising from USD 26 trillion in 2002 to USD 62 trillion in 2007 (FSB 2012d). The size of the total system declined slightly in 2008 but increased subsequently to reach USD 67 trillion in 2011 (equivalent to 111% of the aggregated GDP of all jurisdictions).

The FSB’s annual monitoring exercise for 2012 significantly broadened the range of jurisdictions covered to include all 24 FSB members, Chile, and the euro area. This expanded coverage enhanced the comprehensive nature of the monitoring, since the participating jurisdictions represented in aggregate 86% of global GDP and 90% of global financial system assets (FSB 2012d). Globally, the shadow banking system (as conservatively proxied by other financial institutions) represents 25% of financial system assets on average, but nearly 50% of bank assets (!) and 111% of the aggregated GDP for the sample of 20 participating jurisdictions and the euro area. For more details, see the document with accompanying data

for the FSB's Global Shadow Banking Report (FSB 2012e). However, these aggregate numbers mask wide disparities between jurisdictions. The Netherlands (45%) and the US (35%) are the two jurisdictions where non-bank financial institutions (NBFIs) are the largest sector relative to other financial institutions in their systems. The share of NBFIs is also relatively large in Hong Kong (some 35%), the euro area (30%), Switzerland, the UK, Singapore, and Korea (all around 25%).

As demonstrated inter alia by FSB (2012b; 2012c) and K. Bakk-Simon *et al*. (2012), money market funds and repo lending are important constituents of shadow banking. Money market funds (MMFs) flourished in the United States as an alternative to bank deposits in order to circumvent regulatory caps on bank interest rates. According to K. Bakk-Simon *et al*. (2012), assets under management by MMFs at the end of 2008 amounted to EUR 2.4 trillion, EUR 1.6 trillion of which was accounted for by institutional investors and the remainder by retail funds. As MMFs invested in short-term debt, they were an important source of funding for the shadow banking sector through purchases of certificates of deposits and commercial papers as well as repo transactions. However, we have to be clear that MMFs are a somewhat heterogeneous group in Europe (Bakk-Simon *et al*. 2012) and do not play such a decisive role like they do in the US.

The repo market is a key source of financing for the US shadow banking sector. Again, according to K. Bakk-Simon *et al*. (2012), the data available (collected by the Federal Reserve System for primary dealer banks) reported repo financing for EUR 2.9 trillion in March 2008, but its overall size was estimated to be more than EUR 6.4 trillion.

3.3. Systemic risks arising from shadow banking

The EU Commission emphasizes that shadow banking needs to be monitored because of its size as just illustrated, its close links to the regulated financial sector and the systemic risks it poses (EC 2013). It is an illusion to believe that shadow banking can be abolished. The "traditional" banking system and the shadow banking system are too much intertwined and dependent on each other. We must accept that shadow banking is not something parallel to and separate from the core banking system, but is deeply interconnected to it. However, as a result, any weakness that is poorly managed, or the destabilisation of an important player in the shadow banking system, could trigger a contagion that would affect sectors of the financial industry being subject to highest prudential standards. FSB is of the same opinion when stating that the shadow banking system can pose risks to the financial system, be it on its own or through its links with the regular banking system (FSB 2012f). These risks can become acute, especially when transforming maturity/liquidity and creating leverage like banks.

According to the ECB study by K. Bakk-Simon *et al*. (2012), the interconnections identified between shadow banks and the banking system include: (i) originating loans to be packaged into ABS; (ii) providing liquidity facilities to conduits; (iii) providing repo financing; (iv) issuing short-term paper for MMFs; (v) marketing their own MMFs to customers.

As already mentioned, shadow banking activities are not detrimental per se. Not many will find such kind words for shadow banks as Jean-Pierre Jouyet, Chairman of AMF, the French Capital Markets Authority: "As a conclusion, I would like to stress that we need a shadow banking system as much as we need banks. Properly monitored or regulated, a healthy shadow banking system is probably one of the conditions for more growth in Europe tomorrow. And to highlight this role of shadow banking, maybe the entities of the shadow banking system should be rebranded with a more appreciative word, like alternative financing mechanisms, once they are properly regulated" (Jouyet 2012).

As mentioned, risks in the shadow banking system can easily spill over into the regular banking system, as banks often comprise part of the shadow banking credit intermediation chain or provide support to non-bank entities. Another aspect not to be neglected is that the shadow banking system can also be used to avoid financial regulation, which may lead to a build-up of leverage and risks in the system. For example, securitisation was widely used by banks during the pre-crisis period to take on more risks and facilitate the build-up of leverage in the system, while avoiding the regulatory capital requirements posed by the Basel Accord (FSB 2012f).

We have to recognise that the way in which shadow banking contributed to financial instability just reflects fundamental developments in the financial system, which are relevant both to banks and to shadow banks. This remains important today, as it could produce new problems in the future. Banks can also be exposed to the shadow banking system through temporary exposures, through the provision of finance, or through contingent credit lines (FSB 2011). There can also be important links on the liabilities side, as banks may be funded by entities like money market funds which form part of the shadow banking system.

However, there is one development giving every reason for caution: shadow banks in their activities started to behave more and more like banks, as Z. Pozsar (2008) put it. He demonstrated that SIVs and conduits relied on short-term financing in the asset-backed commercial paper market to invest in long-term assets. Thus, they were exposed to the classic maturity mismatch typical of banks. By borrowing short and lending long, conduits and SIVs were involved in the classic bank business of maturity transformation. In that sense, conduits and SIVs were alternative forms of traditional banking! FSB adopted a similar view when addressing short-term deposit-like funding of non-bank entities (FSB 2012f).

The crucial differences were that shadow banks as "alternative banks" were not funded by depositors, but rather by investors in the wholesale funding market. Maturity transformation did not occur on bank balance sheets, but rather through capital markets in off-balance-sheet vehicles outside the oversight of regulators (and also investors, as prior to the crisis only a few market participants had heard of SIVs). Last but not least, traditional safety nets for regulated banks (borrowing at the Fed's discount window and FDIC insurance) were unavailable for the shadow banking system of SIVs and conduits, and no alternatives existed (Pozsar 2008; Pozsar *et al*. 2012). Z. Pozsar (2008) compared shadow banks with traditional banks, as the shadow banking system must have the ability to continuously roll over its asset backed commercial paper (ABCP) debt to perform the same functions. This is very similar to regulated banks that need to be able to continuously roll over their deposits in order to fund their loans and provide liquidity to those who need it. That banks are able to continuously roll over their deposits is grounded in their reputation as prudent risk takers and the quality of the loans they carry on their books. The shadow banking system's ability to roll over ABCP depends on the quality of the structured credit products and warehoused loans it held; any sign of trouble with their assets could trigger ABCP investors (their "depositors", so to speak) to dump and refuse to roll over their debt, and a run on the shadow banking system would ensue.

The EU Commission also tackled the issue of regulatory arbitrage: regulated entities could switch their activities to the shadow banking sector in order to avoid heavy regulation. These opportunities for regulatory arbitrage between highly regulated sectors and other sectors of the financial system with no or light touch regulation needs to be reduced (EC 2013). N. Smolders (2012) correctly emphasizes that, in general, shadow banking creates possibilities for regulatory arbitrage. Shadow banks, being less regulated than banks, have a competitive advantage and operate on an uneven playing field. Thus, the shadow banking system may grow at the expense of the regulated banking system.

In its most recent publication, the FSB took a new perspective of the risks of shadow banking (FSB 2013b). The new approach distinguishes between "pure" shadow banking risks and risks that span banking and shadow banking. Following the FSB, the first category of pure shadow banking risks comprises (i) the use of repo transactions to create short-term, money-like liabilities, facilitating credit growth and maturity/liquidity transformation outside the banking system, and (ii) securities lending cash collateral reinvestment. Risks spanning banking and shadow banking comprise (i) the tendency of securities financing to increase procyclicality of system leverage; (ii) the risk of a fire sale of collateral securities; (iii) the re-hypothecation of unencumbered assets; (iv) interconnectedness arising from chains of transactions involving the re-use of collateral; and

(v) inadequate collateral valuation practices. It can easily be assessed that the second category of risks spanning banking and shadow banking is much more severe due to contagion effects.

4. The way forward in the regulation of shadow banking

As already mentioned, shadow banking activities can perform a useful role within the financial system due to one of the following functions (EC 2012):

– they provide investors with alternatives for bank deposits;
– they channel resources towards specific needs more efficiently due to increased specialisation;
– they constitute alternative funding for the real economy, which is particularly useful when traditional banking or market channels become temporarily impaired; and,
– they constitute a possible source of risk diversification away from the banking system.

As the financial crisis has demonstrated, the shadow banking system may create a number of risks and can also become a source of systemic risk. Second, risks in the shadow banking system can easily spill over into the regular banking system, as banks are often part of the shadow banking credit intermediation chain or provide support to shadow banking entities. These risks may be amplified as the chain becomes longer (and therefore less transparent). It should be stressed again that the shadow banking system may be used to avoid financial regulation and lead to a build-up of leverage and risks in the system. Thus, the highest priority should be given to enhancing supervision and regulation of the shadow banking system in areas where these concerns are highest (EC 2013; Smolders 2012).

Until recently, there was implicit easing for shadow banking activities. In the US (much less in the EU), superior bankruptcy rights as safe harbour provisions were massively expanded in a coordinated legislative push in 2004 (Perotti 2012). This supported an extraordinary expansion of shadow banking credit and mortgage risk taking. This guaranteed ease of escape fed the final burst in maturity and liquidity mismatch in the 2004–2007 subprime boom, where credit standards fell through the floor. This safe harbour regime made it possible for shadow banks upon Lehmann's default to take massive stocks of repo and derivative collateral and resell it within hours. This produced a shock wave of fire sales of ABS holdings by safe harbour lenders. While these lenders broke even, their rapid sales spread losses to all others, forcing public intervention. It became evident that shadow banks need safe harbour privileges to replicate banking. No

financial innovation to secure escape from distress can match the proprietary rights granted by the safe harbour status, which ensure immediate access to sellable assets. Traditional unsecured lenders have taken notice and now request more collateral, squeezing bank funding capacity and limiting future flexibility (Perotti 2012). This is another aspect that was to be taken into account when tackling shadow banking regulation, and the FSB has addressed this special problem.

Before entering the description of the approaches taken by the FSB and the EU, it should be noted that the FSB (with the G20 mandate) started work on this important field. However, following the financial crisis of 2008, the EU mandated the Commission start regulation on shadow banking. As many members of the EU are also part of the FSB, and in order to avoid parallel efforts, the European Commission built its work on the ground laid by the FSB. Thus, we will find a lot of commonalities between the two approaches.

4.1. The approach taken by the FSB

The FSB is convinced that the authorities' approach to shadow banking has to be a targeted one. The objective should be to ensure that shadow banking is subject to appropriate oversight and regulation to address bank-like risks to financial stability emerging outside the regular banking system. At the same time, it should not prevent sustainable non-bank financing models that do not pose such risks (FSB 2012a). Given the interconnectedness of markets and the strong adaptive capacity of the shadow banking system, any proposals in this area necessarily have to be comprehensive in order to prevent regulatory arbitrage.

First, the FSB (2013a) has created a monitoring framework to enhance the national authorities' ability to track developments in the shadow banking system, with a view to identifying the build-up of systemic risks and enabling corrective actions where necessary. Such a framework is laid out in FSB (2013c). Second, the FSB has coordinated the development of policies in five areas where oversight and regulation needs to be strengthened to reduce systemic risks. These five areas are:

- (i) mitigating risks in bank interactions with shadow banking entities;
- (ii) reducing the susceptibility of money market funds (MMFs) to "runs";
- (iii) improving transparency and aligning incentives in securitisation;
- (iv) dampening pro-cyclicality and other financial stability risks in securities financing transactions, such as repos and securities lending;
- (v) assessing and mitigating financial stability risks posed by other shadow banking entities and activities.

The recommendations laid out in the Financial Stability Board's document of 2012 (FSB 2012a) cover the following topics:

Bank interactions with shadow banking entities

Since the crisis, members of the Basel Committee on Banking Supervision (BSBS) have implemented (or are in the process of implementing) a number of measures (through Basel II.5 and Basel III) that should strengthen the resilience of the banking sector against some risks posed by shadow banks.

Separately, the BCBS considerations in the following three areas (i) scope of consolidation, (ii) large exposures, and (iii) bank investment in funds were presented to the FSB in July 2012 and led to detailed policy recommendations in August 2013 (FSB 2013c).

Concerning capital requirements relating to banks' short term liquidity facilities to shadow banking entities, the FSB asked the BCBS to ensure that bank support for money market funds and other sponsored vehicles are adequately captured by its work on the scope of consolidation and/or its treatment of reputational risks and implicit support.

Money market funds

Given the demonstrated potential for a systemic run risk among money market funds (MMFs), the FSB requested the IOSCO to develop policy recommendations for MMFs in October 2011. IOSCO's recommendations (IOSCO 2012a) cover a range of issues associated with MMFs, including (i) General (regulatory framework) – MMFs should be explicitly defined in collective investment schemes (CIS) regulation, as they present several unique features; (ii) Valuation – MMFs should comply with the general principle of fair value when valuing their assets; (iii) Liquidity management for MMFs; (iv) MMFs offering a stable NAV should be subject to risk-reducing measures and additional safeguards; (v) Use of credit ratings; (vi) Disclosure to investors; (vii) MMF practices in relation to repos.

Other shadow banking entities

The presented high-level policy framework consists of the following three elements:

(i) Authorities must identify the sources of shadow banking risks in non-bank financial entities in their jurisdictions by referring to the following five economic functions: 1) management of client cash pools with features

that make them susceptible to runs (e.g., credit investment funds with stable NAV features, leveraged credit hedge funds); 2) loan provision that is dependent on short-term funding (e.g., finance companies with a short-term funding structure or that take deposits); 3) intermediation of market activities that is dependent on short-term funding or on secured funding of client assets (e.g., securities brokers whose funding is heavily dependent on wholesale funding); 4) facilitation of credit creation (e.g., credit insurers, financial guarantee insurers); and 5) securitisation and funding of financial entities (e.g., securitisation vehicles).

(ii) Authorities should adopt overarching principles and apply policy tools from a policy toolkit for each economic function as they think best fits the non-bank financial entities concerned, the structure of the markets in which they operate, and the degree of risks posed by such entities in their jurisdictions.

(iii) Authorities will share information via FSB, in order to maintain consistency across jurisdictions in applying the policy framework, and also to minimise "gaps" in regulation or new regulatory arbitrage opportunities.

Securitisation

Again IOSCO was approached by FSB to examine further policy areas. IOSCO proposed three possible policy actions to align the incentives associated with securitisation, and to support confidence in sustainable securitisation markets while avoiding impediments to cross-border activity in those markets: (i) enhance monitoring of the implementation of retention requirements and its impact on the market (especially differences across jurisdictions in the approaches taken to adopt retention requirements such as the forms of retention and exemptions); (ii) improve disclosures by issuers; for example, on stress testing or scenario analysis undertaken on underlying assets; and (iii) encourage standardisation of securitisation products through, e.g., development of standard detailed disclosure templates on the basis of existing initiatives such as those developed by the industry. IOSCO has finalised its final policy recommendations and published its final report on 16 November 2012. These recommendations cover a roadmap toward convergence and implementation of risk retention requirements, work to build on recent developments in terms of standardised templates for asset-level disclosure, and other disclosure-related aspect to assist informed investment decisions, as well as further issues for consideration for the sound regulation of sustainable securitisation markets (IOSCO 2012b).

Securities lending and repos

Securities lending and repo markets are central to financial intermediaries' abilities to make markets, and facilitate the implementation of various investment, risk management, and collateral management strategies. Repo markets are also core funding markets for some financial institutions and instrumental in monetary refinancing operations in many jurisdictions. However, securities lending and repos are also used to conduct "bank-like" activities, such as creating money-like liabilities, carrying out maturity/liquidity transformation, and obtaining leverage. Therefore, a separate work stream was set up to assess financial stability risks and develop policy recommendations where necessary to strengthen regulation of securities lending and repos. Now, 13 policy recommendations have been developed and presented in a separate report (FSB 2012c). The recommendations comprise of improvements in regulatory reporting, market transparency, corporate disclosures, and reporting by fund managers to end-investors; further, the introduction of minimum standards for haircut practices, limitation of risks associated with cash collateral reinvestment, addressing risks associated with re-hypothecation of client assets, strengthening collateral valuation and management practices, evaluating the establishment or wider-use of central clearing where appropriate, and changing bankruptcy law treatment of repo and securities lending transactions.

In advancing these proposals, the FSB is aware that shadow banking activities have taken on a variety of forms, responding to changing market and regulatory conditions, and they will continue to evolve. Looking ahead, FSB recommends authorities to be mindful that, by strengthening the capital and liquidity requirements applying to banks (an essential pillar of the G20's financial reform programme), the Basel III framework may increase the incentives for some bank-like activities to migrate to the non-bank financial space. Other forms of regulatory reform may have similar effects. The FSB therefore believes that oversight and regulation for shadow banking must incorporate a system of "embedded vigilance" through on-going review, capable of evolving in response to market changes (FSB 2012a).

It is quite remarkable that the FSB has adopted a new approach called the economic function-based perspective (FSB 2013c). This approach as a look-through allows judging the extent of non-bank financial entity involvement in shadow banking by looking through to their underlying economic functions rather than legal names or forms. Furthermore, this approach is forward-looking as it enables us to capture additional types of entities that conduct these economic functions which generate shadow banking risks. Over time, the FSB may, of course, revise the economic functions and add new ones if deemed appropriate.

4.2. The EU Commission's approach

In its most recent paper, a communication to the Council and the European Parliament (EC 2013), the Commission followed FSB's definition of shadow banking. It stresses the need to closely monitor shadow banking due to its size, its close links to the regulated financial sector, and the systemic risk it can pose. Regarding size, a small decrease is stated since 2008, but the total figure in 2011 was still EUR 51,000 billion (EC 2013). Roughly two-fifths are concentrated in the US (some EUR 17,000 billion), another two-fifths in the Eurozone with EUR 16,800 billion, and one-fifth in the UK (some EUR 6,800 billion).

It has to be pointed out that the EU as legislator / co-legislator has already taken measures: there is the Capital Requirement Directive II (CRD II) committing the originator to have an economic interest of at least 5% of securitised assets. CRD III reinforced capital requirements for risks out of securities transactions. The strengthening of the capital base for banks through CRD IV and Capital Requirement Regulation (CRR) is under way. Next, there is more transparency by accounting requirements, like IFRS 7, 10, 11 and 12 (EC 2013). The EU has also adopted a new framework for managers of alternative investment funds, the AIFMD. Market integrity is enhanced by EMIR, the European Market Infrastructure Regulation. This regulation requires central clearing of all standardised derivatives contracts traded OTC, thus enhancing transparency.

One big job is left to be done: without adequate data, no meaningful regulation will be possible. Therefore, the ECB and the national regulatory authorities started a huge program collecting data on shadow banking transactions in a harmonised way. Once this job is completed, the European legislator will have a solid base to draft measures for improved supervision of the shadow banking sector.

5. Concluding remarks

In the near future we will know more details about the planned regulation. However, despite the already very detailed proposals of the FSB, there is still no definitive agreement on how to best reach protection against systemic risks and spillovers from the shadow banking system into the traditional financial system.

On the one hand, it might be that shadow banks are really part of banks: many forms of shadow banking have been or still are sponsored by banks, operated by banks, or both. They are effectively part of their "parent" bank (Tucker 2012). In the run up to the present crisis, prominent examples were SIVs, ABCP conduits, and MMFs. Many benefitted from financial support from their "parent" during 2007–08. For such situations, A. Tucker (2012) draws the conclusion

that shadow banking vehicles or funds that are sponsored or operated by banks should be consolidated on to bank balance sheets. Such a consolidation might require changes in accounting rules, which itself could take time. These vehicles and funds should nevertheless be treated as consolidated in the application of Basel 3 regulatory capital requirements, etc. If necessary, Pillar 2 should be used to achieve that.

A. Turner (2012) posed the question: separate or regulate? That is to say, should the regulator just put a cordon sanitaire around traditional banking, or is there a need also to regulate shadow banking itself? A. Turner seems to tend more to the concept of "cordon sanitaire", following the example of the Volcker Rule in the US and proposals of the Vickers Commission in the UK. His argument is the "woefully inadequate trading book capital support", already having been addressed by Basel 2.5. In addition, he would like to see a reduction in the vulnerability of bank balance sheets by regulatory separation of investment banking from classic commercial banking activity.

On the other hand, we find shadow banks being neither legally nor de facto part of a banking group. In many such cases, shadow banking entities are fundamentally dependent on banks through committed lines of credit. If liabilities are being called before assets fall due or before they can be sold in an orderly way (maturity mismatch), an institution is exposed to liquidity risk. Of course, banks can provide insurance against such liquidity risk because their deposit liabilities are money; they can lend simply by expanding the two sides of their balance sheet simultaneously, thus creating money. But from a macroprudential perspective, for the system as a whole providing committed lines to shadow banks is riskier than providing such lines to non-bank businesses. Shadow banks are liable to call on their lines just when the banking system is coming under liquidity pressure itself (Tucker 2012).

Recently, one could observe a phenomenon of shadow banking-like activities that was much more linked to ordinary banking than anything else discussed until now. Due to the general de-leveraging of banks in the follow up of the Basel III framework, there are many non-bank activities financing SMEs gaining popularity (Jackson 2013). Given the definition of shadow banking in chapter 3.1, these activities, be it crowd financing or more general providing capital to SMEs via specialised channels, are shadow banking mechanisms too. Most recently, we have seen an expansion of lending activities of insurers to SMEs in Germany and Austria. But it is also private equity houses lending to non-banks. And last but not least, we have to mention credit platforms, notably peer to peer lending (Jackson 2013). By now, these activities are so small in numbers that they probably pose no risk to financial stability. But given success and a certain volume in these activities, regulators should place them on their radar screen.

It is exactly because of those cases that regulation will have to take place. Despite the understandable desire to keep complexity as low as possible, regulators will have to find an answer on how to most effectively regulate shadow banks – and at the same time avoid an uneven playing field vis-á-vis banks. There will be no quick and easy solution, partly due to the above mentioned lack of available data on shadow banking (FSB 2012a), and partly due to the complexity of the task. Whatever the regulatory answer will be, one thing is for sure: we should beware of additional complexity. A. Haldane and V. Madouros (2012) have called for reducing complexity of the financial system and of the regulation itself.

There is definitely a need to regulate shadow banking. And yes, shadow banking can pose systemic risks to the financial sector – and to the economy as a whole. Regulators have to take action in order to minimise systemic risk. But if it holds true that regulation of traditional banking has become far too complex, and if due to that insight regulators avoid complex regulation of shadow banking, then it is only fair to call for a more simple regulation of banking as well as of shadow banking.

However there is one last observation to be made: as the phenomenon of shadow banking is not tied to a certain country, regulation of shadow banking has to be done on a global scale. Otherwise, it would be easy to bet on regulatory arbitrage. This might be one of the reasons why the EU has not moved forward faster than the FSB.

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