SUERF THE EUROPEAN MONEY AND FINANCE FORUM

Shadow Banking: Financial Intermediation beyond Banks

Report on the 33rd SUERF Colloquium & Bank of Finland Conference
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Conference Report

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The 33rd SUERF Colloquium on "Shadow Banking: Financial Intermediation beyond Banks", was jointly organized by SUERF and the Bank of Finland in the House of the Estates in Helsinki on 14–15 September 2017. The program (www.suerf.org/shadowbanking) consisted of the traditional Marjolin Lecture of the biennial SUERF Colloquiums, three keynotes, three panels and a poster session based on a call for papers. We were happy to host a record audience in a SUERF event in Helsinki, ca. 135 registered participants and speakers.

Shadow banking is a broad concept. A possible definition is that it comprises non-bank institutions which undertake bank-like activities. Another characteristic is that the sector is overall less regulated. Therefore there are still shortcomings in systematic collection of information of the sector. The lack of information was acknowledged as a problem by many speakers during the conference.

Shadow banks, including alternative investment vehicles as well as more traditional funds, may offer better returns and risk diversification opportunities to savers and investors. They help complete the markets. This was one of the opening remarks made by the first keynote speaker Tobias Adrian (IMF), a leading researcher of shadow banking since the Global Financial Crisis. He called his speech "Shapes in the shadows: What do the data (not) tell us?".

On the downside, the lack of transparency of shadow banks can increase opacity and risks in the financial markets. The lack of regulation implies that it is difficult to monitor and prevent the build-up of leverage and concentrated risks in the shadow banking sector. Hence, the sector can be a source of systemic risks.

Adrian noted that one defining difference between shadow banking and traditional market finance (as opposed to intermediated finance) is shadow banks' more direct links to systemic risks. These can arise from the use of collateral chains, potentially hazardous levels of leverage, agency problems related "securitizing lemons", and regulatory arbitrage which can contribute to shadow banks' interconnectedness with banks.

According to Adrian, post-crisis regulatory reforms have dealt with the central loopholes in the interface of shadow banks and banks, and important regulation concerning e.g. money market funds has been passed or is forthcoming, depending on the jurisdiction. Nonetheless, there will always be unintended consequences from regulation. And it is not necessarily clear that even the current regulation is capturing all "step-in" guarantees provided by banks to non-banks, a phenomenon that turned out to be an important factor in the past crisis.

The first panel discussion, chaired by **Christian Upper** (BIS and SUERF) was titled The current landscape: Markets and players, competitors and complementarities. Hence it continued many of the themes already taken up in Tobias Adrian's first keynote.

The first panelist, **Tuomas Peltonen** (European Systemic Risk Board) emphasized that it is important for macroprudential policy to look beyond banking. We know that the size of the shadow banking sector is substantial and growing, but we still lack detailed data. In his view, banks in the EU are exposed to non-EU shadow banking entities. Further improvements in the risk analysis of shadow banking are needed.

Yasushi Shiina (Financial Stability Board) gave an overview of FSB's work on transforming shadow banking into resilient market-based finance. He defined the shadow banking system as the system of credit intermediation that involves entities and activities fully or partly outside the regular banking system. To address the risks, FSB conducts an annual monitoring exercise at the national and global levels and develop policy measures to strengthen the oversight and regulation of shadow banks to mitigate potential bank-like systemic risks. FSB's annual monitoring exercise covers about 90 % of global financial system assets and includes offshore financial centers. He showed data on the role of Other Financial Intermediaries (OFI) compared to GDP. Important subsectors in the group of OFIs are equity funds, broker-dealers, fixed income funds, money market funds and hedge funds. The OFIs are in several ways interconnected with banks. This has implications for the ultimate distribution of funding risk and credit risk. FSB also monitors pension funds and insurance corporations. The speaker mentioned a number of recent regulatory reforms aiming at the evolving system of market-based finance in general. FSB's recommendations concern liquidity mismatches, leverage ratios, operational risks and securities lending for asset management activities. Arbitrage opportunities across jurisdictions and sectors also represent important challenges.

Antti Suhonen (Aalto University) noted that the border between shadow banking and traditional market finance gets easily mixed by authorities. He was talking mainly on the basis of his market experience from the UK. The share of corporate bank loans has increased significantly since the crisis. Peer to peer lending is also starting to be significant in the small firm segment in the UK. There is a search for diversity of financing sources. FinTech has a lot to offer in many regions, which have been lagging behind in digital bank services. However, the credit granting processes of the new players will be tested only in the next crisis. He found a certain irony in the observation that some disrupters now want to become banks, largely attracted by getting access to deposit insurance. In the Q&A part, Mr. Suhonen made a remark that if, say, peer to peer lending was taken under close supervision and regulation, markets might start expecting a fiscal backstop to these entities.

The panel chair, **Christian Upper** also participated actively in the panel by providing his insights as a BIS expert on the rapidly growing shadow banking sector in China. The Chinese authorities are facing a trade-off: the credit growth in the shadow banking sector is importantly supporting economic growth but also causing risks to financial stability. Authorities have required banks to consolidate exposures to shadow banks in stress testing.

Shadow banks can increase competition and spur innovation in the financial sector. The benefits may come in the form of improving efficiency and quality of financial services. The second keynote speaker, **Phillip Straley** (President of ECO World Alliance) who ended the first day, emphasized that new players making use of new technologies will impact incumbent banks' business models. According to him, societal changes are also reshaping the landscape of financial services. Some of the new players are "enablers" while others bring more competition. Straley referred to a well-known discussion paper by Thomas Philippon (The FinTech Opportunity http://pages.stern.nyu.edu/~tphilipp/papers/FinTech.pdf), which suggests that regulators have an important role in creating conditions that can help reach the benefits of the new technologies. Straley predicted that the current tech giants will be the key players also in the area of financial services in the future. This is because they have the information base ("Big Data") of the potential customers, and "deep pockets".

Traditional banks may utilize shadow banks for alleviating the effects of regulation, such as capital requirements. This is one reason why shadow banks played a significant role in the build-up of the Global Financial Crisis. Not all actual risks appeared on banks' own balance sheets. They were in effect hidden as off-balance-sheet items in shadow banks. This phenomenon is part of what is called regulatory arbitrage. Regulatory arbitrage was also the topic of **Daniéle Nouy's** (Chair of the Supervisory Board of the Single Supervisory Mechanism) Marjolin Lecture, which she delivered as the first female speaker in the history of this lecture series, starting the second day of the conference.

Nouy identified three categories of regulatory arbitrage, one of which is the earlier mentioned off-balance sheet channel of banks utilizing shadow banking entities. The other is the more traditional "race to the bottom", whereby banks seek the least-cost jurisdiction to book their exposures. Even national regulators may engage in this race by offering laxer regulations to help their country attract new financial business. She noted that such potential developments should be monitored carefully in the aftermath of Brexit. This form of regulatory arbitrage may also take the form of sectoral shifts. The third form of regulatory arbitrage concern utilization of loopholes in existing rules, which create incentives for banks to minimize risk indicators and thereby in effect reduce their capital and liquidity requirements.

On what to do about regulatory arbitrage, which indeed undermines the basic idea of regulation, Nouy emphasized the importance of harmonizing rules, using EU regulations, and global cooperation and information sharing. She also reminded that intensified bank competition reinforces incentives to regulatory arbitrage, and that working around the rules is not socially optimal. In response to a question from the audience regarding the fair regulatory treatment of small vs large banks, she acknowledged that proportionality in implementation is a good principle. To a question on regulating interest rate risk she replied that regulators are not shying away from that but the issue is genuinely complex. Interest rate risk can be tackled as part of stress testing.

A major regulatory effort concerning shadow banks in the aftermath of the Global Financial Crisis has been to ensure that traditional banks' exposures to the shadow banking sector are subject to bank capital requirements which match the true risks. Nonetheless, several speakers, including Nouy, reminded that we should not yet be complacent in this respect. New links between banks and shadow banks, which may escape current regulations and hide risks may develop. The earlier mentioned "step-in" risk, in the form of implicit bank guarantees to shadow banking entities which they are connected with, is still not properly tackled.

It is also possible that in a crisis situation, large scale asset fire sales take place in the shadow banking sector, which have an impact on asset values and hence on traditional banks' balance sheets comprising similar assets.

In sum, we are still some way from ensuring that shadow banking has been transformed into resilient market-based finance, able to stand on its own, and not transmitting excessive risks to the banking sector.

The panel that followed Danielé Nouy's lecture, took up the issue of regulating shadow banks (Out of the shadows? The role of regulation and supervision), chaired by **Jakob de Haan** (De Nederlandsche Bank and SUERF).

The first speaker, 2016 Nobel Laureate **Bengt Holmström** reminded the audience that when we seek to regulate something, it is crucial to understand why the phenomenon to be regulated exists in the first place. As a starting point, it is the best antidote against unintended consequences of regulation. The previous crisis brought money markets into the spotlight. Holmström noted that previously little time in economic research had been spent to understand them. Their dynamics is very different from that of the much-researched equity markets: in normal times, money markets are a low-information environment but in a crisis the information sensitivity of the value of debt traded in money markets can increase dramatically. As a result, the normally high liquidity of money market instruments can be lost.

The growth of shadow banking especially during the years preceding the Financial Crisis resulted largely from the increase in the global demand for safe assets. Holmström noted that the growth of shadow banking in the US went almost hand-in-hand with the flow of surplus capital from China to the US. Risks were spread also to European banks. According to him, one way to increase safety and reduce the risks of shadow banking is to increase the public supply of safe assets. This can improve the repo market. Data shown in Tobias Adrian's keynote presentation suggested that shift to government issued assets has taken place in the money market fund assets after the crisis.

Richard Portes (London Business School, CEPR, and ESRB) summarized his views and concerns of the shadow banking sector by pointing out that much of the demand is driven by pursuit of new 'safe assets' while their supply is often motivated by regulatory arbitrage; securitization before the crisis as a key example. Shadow banks enjoy no explicit safety nets; yet they may need bail-out (perhaps the US money market funds being a case in point). Systemic risks can arise from the interconnections between banks and shadow banks. He echoed **Tuomas Peltonen** (ESRB) in that there are still gaps in the data. In this regard, an important question is e.g. the amount and forms of synthetic leverage.

Dimitris Zafeiris (EIOPA) expanded the view to the insurance sector. Some functions of it are sometimes counted as part of shadow banking although insurance is a regulated industry and hence not in the "shadows". Maturity mismatch is not an issue in the same sense as in (shadow) banking. However, he pointed to the existence of shadow insurance and the potential for regulatory arbitrage in connection with the insurance industry.

Stan Maes (European Commission) emphasized many of the important issues raised by earlier speakers. He asked if we still fully understand the drivers of growth of shadow banking. Is shadow banking offering true efficiency gains, or is it mainly about regulatory arbitrage? What are the institutional factors at play? He noted that regarding regulation of shadow banking, the alternatives are to regulate shadow banking entities, functions, or interconnections with other financial institutions. In the discussion, Christian Upper called for a better understanding of the pros and cons of diversity which shadow banks arguably expand.

The second panel was followed by the third keynote speaker, **Nicola Gennaioli** (Bocconi University) who is well-known for having introduced (together with Andrei Schleifer and Robert Vishny) certain forms of bounded rationality to studies on financial crises and shadow banking. Human biases can lead to ignorance of rare tail events. This leads to underestimation of risk and can lead to over-production of seemingly safe assets, particularly in the shadow banking sector. He also showed development of loss projections over the period of the global financial crisis to show that there were large errors in expectations still in 2007 after the subprime crisis had broken out.

The event ended with the third panel discussion on *Looking ahead: Forthcoming financial innovations and institutions – opportunities and risks*, chaired by **Michala Marcussen** (Société Générale and SUERF). The panel featured two CEOs of large Nordic institutional investors and two central bank experts on financial stability and digitalization.

Henrik Normann (Nordic Investment Bank) took up the consumer protection aspect of the new financial services making use of the new technologies. He was concerned about low net-wealth customers being effectively charged very high interest rates on their loans, and the long-term societal consequences this might have. Regarding data protection and threats of cybercrime, he saw that the digitalization of personal financial information is already beyond the point of no return. The potential for wrong-doings is very real. In response to the chair's question, what keeps the panelists awake at nights, he alluded to market risk premia being at very low levels. He also believed there is over-optimism regarding future pensions.

Saskia de Vries-van Ewijk (De Nederlandsche Bank) said the current low interest rates are necessary but may be creating a new financial cycle. The policy challenge is to ensure a healthy and stable growth for the future. FinTech is an area that has to be monitored closely by financial authorities.

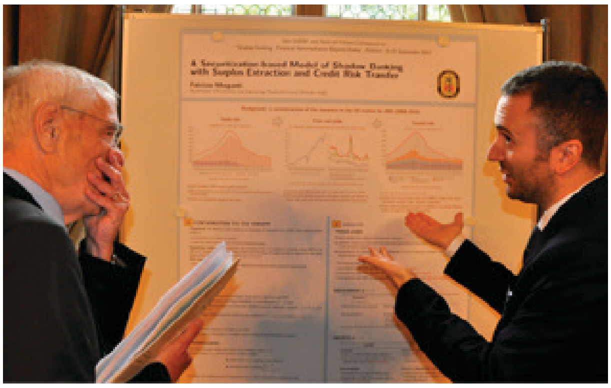
Risto Murto (Varma) referred to the large-scale regulatory reforms and unconventional monetary policy measures after the crisis. He said that from an investor's point of view policy had so far shown its positive sides. Insurance has been less affected by new regulation. According to him there are some opportunities to those players that are less regulated. New regulation is also building barriers to entry and he did not see Fintech to be very big yet in the Nordic area. Then again, digital banking has been a reality in the Nordic countries already for twenty years. On the risk side, he asked whether (geo)political risks are underestimated. He also noted that in terms of allowing the digitalization of data, societies are currently a bit naïve. More regulation of these new areas might well be needed.

Bank of Finland's **Aleksi Grym** noted in his remarks that much of FinTech is driven by consumers' dissatisfaction with current financial services. They want easy financial services to be available on the 24/7 basis. He expects artificial intelligence to be the next big revolution in financial services, much like self-driving cars could be in traffic. He reminded that there will also be mistakes on the way. For instance, algorithmic trading has already demonstrated the endogeneity of risks from the new techniques. Fintech can lower barriers to entry but the strongest incumbent banks cannot be disrupted in many areas. An important question is whether market structure will really change as a result of the Fintech's evolution. If Fintech grows big, regulation will inevitably step in. He also pointed out that regulators should keep an eye on financial institutions' hidden risks by monitoring their profitability; high profitability can indeed be too good to be true, properly risk-adjusted profitability. Issues of moral hazard and adverse selection will not vanish with Fintech.

The poster session held on the first day comprised of eight very interesting research paper on shadow banking, covering both theory and empirics. The traditional Marjolin Prize, awarded to the best paper presented in the Colloquium by authors no older than 40, was won by

Edouard Chrétien (ACPR, École Polytechnique, CREST) and **Victor Lyonnet** (HEC Paris, École Polytechnique, CREST). Their paper, Traditional and shadow banks during the crisis, provides an elegant theoretical model to study a central question: why the regulated banking sector and the less regulated shadow banking sector coexist? The authors show how the two benefit from one another in a crisis situation, given that only banks have access to deposit insurance. The authors find that, in equilibrium, the shadow banking sector can become larger than what is socially desirable. The paper provides new valuable insights to the events during the global financial crisis that started ten years ago.

In sum, the Colloquium offered interesting insights to the past and present of shadow banking. The sector has clearly taken new shapes after the crisis. Much has been done in regulation to oversee the border between banks and shadow banks. Yet, speakers representing financial authorities were certainly not expressing complacency. Shortcomings in both theoretical understanding and data to monitor the sector's developments were widely acknowledged. In the words of one speaker in a private discussion, perhaps we are currently a bit in a wait and see mode, after all the reforms already done.



The conference presentations are available online at:

www.suerf.org/shadowbanking2017