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Shadow banking: Money market's odd relationship with the law

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After several years of reforms aimed at putting the financial system on a sounder footing, together with the ensuing fatigue, could the intriguing concept of 'shadow banking', adopted by the Financial Stability Board (FSB) and the European Commission, herald a second period of fundamental reforms? This depends on whether the concept is associated to new, exotic breeds of financial intermediaries (in which case reforms will not amount to much) or seen as a symptom of broader changes at the core of financial systems, both local and global, which would require deeper, more comprehensive reforms. This article discusses the nature of the problem and its implications.

Observatorio de Divulgación Financiera

Introduction

Regulating financial services is difficult and controversial. There is no agreement about the right balance between a market-reliance approach that fosters innovation, and a market-design approach that focuses on soundness and stability. But this happens at the best of times, i.e. when there is agreement about what should or should not be regulated. Unfortunately, this is not one of those times.

'Shadow banking' is the concept used by the Financial Stability Board (FSB)[1], and echoed by the European Commission,[2] to pursue a regulatory agenda that tries to address (some of) the risks that appear at the margins of the financial system. The FSB framework, which constitutes the basis of most policy work, defines 'shadow banking' as:

"a system of credit intermediation that involves entities and activities outside the regular banking system, and raises i) systemic risk concerns, in particular by maturity/liquidity transformation, leverage and flawed credit risk transfer, and/or ii) regulatory arbitrage concerns"[3].

Anyone who is confused after reading this definition could be forgiven (anyone else possibly works at the FSB). The picture that emerges is not necessarily clearer after looking at the data provided by the FSB.[4]

The stark divergences between size or growth are not only important in themselves, but to the extent that they reflect deeper tensions regarding the concept and its implications. Is shadow banking formed by the fast-growing body of exotic financial entities, or does it encompass well-established players? Is it circumscribed to such financial 'entities' or does it also encompass transactional phenomena (e.g. 'shadow' transactions by regulated players)? Is it the result of market players' efforts to exploit loopholes in the rules, or are there other forces at play? These questions must be addressed if the actual risks of shadow banking are to be determined.

This article tries to paint a clear(er) picture of what shadow banking is, as well as the options available to policymakers. It also aims to show that, rather than a phenomenon at the margins of the financial system, it is part of its core. With this purpose in mind, Section II tries to define the concept better, Section III makes a critical analysis of current initiatives and Section IV draws conclusions.

Tabla 1.

	Shadow banking assets (USD billion)		Share of shadow banking assets	Shadow banking as a percentage of GDP
	2010	2014		
TOTAL		36,000	100%	
United States	12788	14238	39.7%	86%
China	508.1	2747	7.7%	27%
United Kingdom	4063	4101	11.4%	147%
Germany	2212	2585	7.2%	73%
Ireland	2146	2731.6	7.6%	1190%
Spain	301	265	0.7%	21%

Fuente: Elaboración propia

Shadow banking. Much ado about some-thing… but what?

When a concept is as broadly defined as shadow banking is, our first effort needs to be to remove any associations that do not belong to it, and to search for a common core (1). Then, given that this article follows a legal-institutional approach, it will focus on the two different perspectives that come under this single concept (2). Then, it will offer an explanation of how, in either perspective, shadow banking is a product of the interaction between money-credit markets and the legal institutions underpinning them (3).

1. Shadow Banking: common misconceptions, and the concept's core

Shadow banking is a suggestive concept. However, its evocative nature can be more a curse than a blessing, since, by encompassing such disparate phenomena, it may be nullified as a policymaking tool. Thus, it is necessary to begin by saying what shadow banking is *not*.

1. Shadow banking is not 'shady' banking. Though tempting, the use of the 'dark v. light' contrast is misplaced. Of course, there is renewed concern about the role that banks play as enablers of certain criminal activities (tax fraud, embezzlement of funds, money laundering, terrorism financing…) But those pressing concerns are not a cause of financial instability, and thus need to be left out.

2. Shadow banking is not 'new banking', or, more precisely, not all instances of new banking are 'shadow banking'. It is typical, but incorrect, to take all new financial entities whose activity cannot be explained by traditional conceptions of banking, and lump them together (e.g. microcredit, crowdfunding platforms, Islamic finance)[5]. The fact that a financial entity has a new approach to financing assets or projects *in itself*, says nothing about the potential risk for financial stability. Thus, at the risk of making shadow banking less trendy or appealing, it is important not to identify it with all financial innovations.

3. Shadow banking does not comprise every financial innovation that triggered the 2007-2009 financial crisis either. OTC derivatives, for example, triggered the crisis and made it more severe, and were used by banks and shadow banks,[6] but that does not mean they can be included within the definition of shadow banking.

Focusing on the concept itself, the FSB's idea is not to merely describe a reality, but to lay out a policy agenda; and thus 'shadow banking' is intended as a prescriptive, policy-making, tool, one that encapsulates the risks that need to be mitigated. This presents three salient features: one, financial instability (systemic risk); two, regulatory arbitrage; and, three, a 'system' of 'credit intermediation', 'outside the regular banking system'.

The challenge lies with the third element, which is the one that truly defines shadow banking.A clearer, narrower concept, such as 'maturity transformation' (the funding of long-term assets with short-term liabilities) was often used in the wake of the financial crisis to define shadow banking[7], but the FSB must have considered that it did not fully capture new threats. Thus, it coined the broader concept of 'credit intermediation', and accompanied it by shadow banking risks, such as liquidity transformation, *'leverage and flawed credit risk transfer'.*

That is the concept's balancing act: it must focus on a specific source of financial stability (maturity and liquidity transformation outside the boundaries of existing rules designed to address these risks) and, at the same time, leave open the possibility to encompass different sources of instability.

2. Shadow Banking's institutional account (I). One concept, two perspectives

When focusing on the concept's core, in search of a common rationale that can help classify the new phenomenon, we need to draw what is perhaps the most important distinction. Shadow banking can be characterised from two different perspectives: 'intermediation' and 'monetisation'. Unsurprisingly, re-defined in this way, shadow banking is by no means a new phenomenon.

1. The first perspective is more widespread; it focuses on the 'new intermediaries' and is, arguably, the main focus of the FSB, hence its use of 'credit intermediation' as the key concept.[8] From an intermediation perspective, shadow banking can be characterised as a 'boundary problem' with the following narrative: (1) banks engage in maturity transformation, which is intrinsically unstable; (2) after

repeated crises, public authorities backstop the system to restore confidence; (3) this creates a moral hazard problem, which calls for regulations on safety and soundness; (4) this creates the incentive to undertake activities functionally equivalent to banking outside regulatory boundaries; (5) lighter regulation creates a competitive advantage, and money flows towards the new activities; (6) confidence peaks, then evaporates, and money ebbs away from the new sector, also compromising the whole system; (7) emergency plans are adopted; (8) the regulatory perimeter is reconsidered.[9]

This is consistent with the diagnosis in the IMF's latest report: shadow banking tends to proliferate whenever there is a tightening of banking rules.[10] The above narrative could well describe the 2007-2009 financial crisis (in the wake of the Basel capital rules), but also other historical episodes, such as the 1908 crisis in the United States, with the trust companies,[11] or the 1857 crisis in England, with the bill-brokers, described by Walter Bagehot in *Lombard Street.*[12] Actually, many asset bubbles have been accompanied by money flows towards 'unconventional' parts of the financial system.[13] Yet the existence of a mere tightening of the rules, followed by arbitrage, does not fully explain the multi-faceted relationship between intermediaries and rules.

2. The 'monetisation' view disregards the entities, and focuses on the ways money is 'created' in the economy.[14] Assets that acquire money-like status and increase their velocity of circulation, and, with it, increase leverage, subsequently lose their appeal, and a tragic musical-chairs game ensues, with each player trying to ensure they have safe assets to back their debts. Often the 'intermediation' perspective, by which new entities start behaving like banks, is accompanied by the monetisation of their debts, but this is not necessary, as shown by the chains of accommodation bills in 18th century Holland.[15] This is also consistent with the second aspect of the IMF's diagnosis: shadow banking tends to arise when liquidity is widely available.[16]

However, such a diagnosis does not delve deep into the problem, which is related to the question of what makes money 'money', an old issue that has engaged 'metallists' and 'chartalists' in lively debate: metallists argue that money is a creation of the market; chartalists that it is a creation of the State.[17]

The new monetary landscape, however, is too complex to be explained by a single theory. Money is no longer metal-based, but 'promise-based', i.e. based on debt claims. Thus, the law is needed to define the contents and enforceability of those promises. The law's influence can be subtle, however, and works in ways other than pure mandates. The 'monetisation' of deposits, for example, results from the combination of reserve requirements (which connect deposits with core money claims like central bank reserves), deposit insurance and access to the central bank liquidity window, which enhance their solvency and liquidity.

Thus, if shadow banking comprises a pathology in the system, where the creation of money-like claims spirals out of control, an assessment of the problem cannot simply draw a line between 'controlled' sources and 'shadow' sources of claims, but should rather focus on the *degrees* of control policymakers have over money creation.

Actually, once seen in this way, the loss of control begins quite close to the core. Today, the 'money-multiplier' of macroeconomic textbooks (which postulated that central banks could alter the money supply by changing the quantity of reserves, and set interest rates indirectly by changing the money supply) is a fiction. The process of money/deposit-creation is not driven by central bank initiatives, but by commercial banks: when they identify a good investment opportunity in the form of a loan, they create the corresponding deposit (i.e. a new money asset).[18] Central bank operations are used to avoid interest rate spikes in the market for central bank reserves,[19] and to control liquidity, but not to adjust the 'quantity of money'. This means that, once central banks lose track of market liquidity, they cannot prevent the emergence of pathological processes of money-creation via unconventional means.

3. Shadow banking's institutional account (II). Law and finance's multifaceted relationship

The previous section points to several elements that are necessary to understand shadow banking: one, shadow banking encompasses two different perspectives, 'intermediation' and 'monetisation', two, neither of these perspectives is new, and three, both are a result of the relationship between money-credit markets and the legal institutions underpinning them.

The next step in our process of grasping the concept is to understand that the narrative that explains shadow banking as a tug-of-war between the State's attempts to control, and the markets' innovations to escape, is too simplistic. To begin with, the law's main role is not restrictive, but constructive: it provides the institutions that shape banking, and money markets. Furthermore, the State does not limit itself to enforcing contracts and property rights: it goes out of its way to facilitate the emergence of credit markets. Thus, reality shows that shadow banking is not the result of some random bottom-up process by which market players slip away from restrictive rules, but often the product of top-down institutional design.

(1) (a) A clear example of the 'intermediation' perspective are the US-Government-Sponsored Enterprises (GSEs) Fannie Mae, Freddie Mac or Ginnie Mae. They have made the US securitisation market what it is today. They engage in credit intermediation, yet were under the purview of a specific

supervisor (OFHEO) which was weak not by chance, but by design.[20] The rationale for 'going easy' on GSEs was that they facilitated access to housing for millions of Americans.[21] It was not private agency, but public policy.

(b) If GSEs are a local, and idiosyncratic instance of shadow banking, large dealer banks are an example of global shadow banking: they perform critical functions of credit intermediation in global markets,[22] yet they are regulated as investment firms (with more focus on market conduct than prudential requirements), and not subject to Fed supervision.[23] Their emergence is linked to their role as counterparties to central bank transactions in dealer-based systems, where central banks interact with a short list of financial institutions.[24] Dealers have direct access to the central bank, and furnish it with information necessary to implement its operations. The fact that they are not subject to prudential rules for banks is no obstacle for such a preferential role.

(c) In cases where shadow banking entities result from regulatory arbitrage, the problem may be in the norms being arbitraged. Consider China. A major part of shadow banking's spectacular growth is due to Wealth management products (WMPs) which are investment funds offered as substitutes for bank deposits.[25] The flight of money towards these entities would be inexplicable if not for the restrictions on interest rates set by regulatory authorities: Chinese savers shift to products that offer better returns than the meagre returns offered by bank deposits as a matter of law. WMPs' precedents are US money market funds (MMFs); again, shadow banks, whose rise is linked to Regulation Q's interest caps on deposits.[26] Regulation Q was derogated, yet MMFs survive, which shows that shadow banking can be somewhat path dependent. Back to China, studies suggest that Chinese WMPs invest heavily in the debt of Local Government Financing Vehicles (LGFVs), another example of government-sponsored shadow banking entities.[27]

(d) From an 'intermediation' perspective the arbitrage narrative only fits well with securitisation entities. Private securitisation's growth is linked to the wake of Basel Framework capital requirements, which was calculated by risk-weighting balance sheet assets.[28] A bank that securitised assets would record them as off-balance sheet, and exclude them to calculate capital ratios, then re-acquire exposures to the same assets under more favourable ratings and risk weights.[29] The Basel II Framework introduced many measures to limit arbitrage[30] (on the brink of the crisis), but parallel to the reforms of prudential rules many countries reformed their laws to facilitate securitisation, and enhance bankruptcy-remoteness.[31] Thus, together with regulatory arbitrage we need to consider policymakers' ambivalence towards securitisation: they wanted to limit its risks, but also exploit its potential.

(2) The 'monetisation' perspective offers a similar picture. In the 'official' money-creation function, central bank policy is not targeted at managing the growth of money and credit.[32] The lack of control over money growth is not a result of arbitrage, but of explicit policy choices.

Then, among 'shadow' money-like instruments, repos have experienced the most spectacular growth prior to the crisis, and, after a short intermission, after the crisis too.[33] Repos are used as money-like instruments due to two main factors: one is the type of assets, traditionally short-term government securities; the other is the protection dispensed upon the repo seller's insolvency (unlike other secured financing, repo buyers are not subject to automatic stay of enforcement; they can simply, seize the collateral and sell it). This protection is, again, a policy choice, enshrined in specific statutory rules.[34]

These elements allow the parties to re-create the features that render bank deposits money-like: government securities are the solvency backstop, the ability to seize collateral enhances liquidity. Yet they also eliminate the State's ability to control the growth of money-like claims. Public institutions have no way of managing the growth of repo transactions. Repo claims can arise in an entirely decentralised manner.

This creates risks that stem not only from the sheer growth of repo claims, but also from the market's practices and structures. Among the 'practices' is the constant recourse to rehypothecation, which gives rise to unstable 'repo chains'.[35] Among 'structures' are the US' tri-party repo market, where the two custodian banks (JP Morgan Chase and Bank of New York Mellon) provide the infrastructure, but can also be a source of risk.[36] Studies suggest that an institutional structure based on Central Counterparties (CCPs) is more resilient.[37]

Shadow Banking. What has been done, and what remains to be done

'Shadow banking' is not meant to be solely a descriptive concept, but also a policymaking tool. This section analyses current initiatives (what is being done), and assesses the size of the challenge (what remains to be done). To be consistent with the previous section, we distinguish the perspectives of 'intermediation' (1) and 'monetisation' (2).

1. Shadow banking's 'intermediation' perspective. When priorities collide

Rules and initiatives: indirect and direct regulation

(a) The first major challenge is to regulate the financing vehicles that are 'dependent' on their sponsoring banks. These vehicles posed three problems during the crisis: first,

some vehicles were used to record assets as off-balance sheet, to exclude them from capital requirements calculations, and underreport risk;[38] second, when risks were truly transferred to the vehicles, the resulting originate-to-distribute model misaligned the incentives of originating banks with those of investors, and resulted in lax origination standards (i.e. banks granted credit to weaker borrowers knowing that they would not bear the risk);[39] third, securitisation became too complex, and the original loans were packaged and repackaged[40] so that the purchasers of the final assets had no way of knowing what was at the end of the 'securitisation chain'.

The measures adopted to address each of the problems comprise risk-weights that penalise re-securitisations,[41] a combination of stringent rules on risk transfer, and risk-weights on securitisation exposures for the misreporting problem,[42] and the requirement that sponsors retain 5% of securitisation exposures (the so-called 'skin-in-the-game' rule) for the misalignment problem.[43]

(b) In the field of direct regulation new rules have been passed on Alternative Investment Fund Managers (AIFMs) which include hedge funds,[44] while there is a Proposal for a Regulation on MMFs.[45] The problem with both is the difficulty to reconcile their allegedly prudential focus (which is consistent with leverage limits[46]) with the rest of the constraints included in the rules, which touch on transparency, asset portfolios, client protection, etc.,[47] or the fact that their supervision corresponds to securities commissions, and not the prudential supervisors.

The way ahead. Can one have it all?

The problem in enacting the necessary reforms to address shadow banking's 'intermediation' perspective is that the law is a delicate tool, with its own limitations. Given that there is no such thing as a complete law, new scenarios not expressly covered by the rules (including regulatory arbitrage scenarios) need to be addressed by interpreting existing rules. This is done by appealing to the 'legislative intent' underpinning the rules. The problem arises when such intent is unclear, which is the case here.

(a) Consider the 'indirect' rules in the Basel Framework. The question is how should the law treat financing vehicles that are partially dependent on their sponsor. Determining when the risk of an asset has been 'retained' by the sponsor is extremely complex. A substance-over-form approach where specific rules force sponsors to consolidate the vehicles in each instance of support or dependence will result in circumvention strategies for each new rule. Most likely, at some point the rules will be simplified, and the substance-over-form approach will be abandoned. [48]

The alternative is to have principles-based rules and leave interpretation to supervisors' discretion. Yet to properly exercise discretion supervisors need the intention underpinning the rules to be clear. And the problem is that the rules for securitisation vehicles state, on the one hand, that sponsors must have minimum exposure to the vehicle or its assets if they wish to exclude them from capital requirements calculations; and, on the other hand, that sponsors *must retain* exposures of at least 5% (see 'skin-in-the-game' requirements above). This creates a conflict regarding the behaviour expected from sponsors: should they retain a large exposure to prove that their interests are aligned with those of investors or should they retain the minimum to ensure that sponsor and vehicle are separate?

The confusion is greater given policymakers' mixed attitudes towards securitisation. After years of emphasising safety and soundness, and the perils of excessive securitisation, now EU policymakers have realised securitisation's strength as a tool to mobilise resources, and have subtly changed their approach. In its document 'Building a Capital Markets Union' the European Commission outlines its goal to create a *"sustainable high-quality securitisation market relying on simple, transparent and standardised securitisation instruments"*, which would involve a specific *prudential* regime for this type of securitisation.[49] If such reforms are adopted, are supervisors expected to adopt a cautious or enabling approach when interpreting the new rules?

Thus, there is a certain 'stickiness' inherent in legal texts, which stems from the fact that they have to be applied under the presumption that there is a single legislative intent. If new winds result in new attitudes and policies, how quickly are those changes expected to translate into changes in the interpretation of legal provisions? Policymakers should ensure that the letter of the law reflects a consistent legislative intent, which also leaves room for discretion in its interpretation. At a minimum, they should try not to send conflicting messages which make a finalistic interpretation impossible.

(b) The message is similar for the direct regulation of shadow banks. The definition of 'credit institution' in EU banking rules (*"'credit institution' means an undertaking whose business is to take deposits or other repayable funds from the public and to grant credits for its own account"*[50]) is wide enough to encompass many shadow banks (it depends on how broadly one interprets the references to 'deposits or repayable funds', 'public' and 'grant credits'). The problem is not whether banking rules could apply to shadow banks, but that shadow banks are *already subject* to other, less stringent, rules (on investment firms, UCITS or hedge funds).

The question, thus, is why entities that are subject to similar risks are not subject to equivalent rules. The answer is: express policy choices, and path-dependent inertia. Current rules are built around a distinction between 'banking', 'insurance-

pensions' and 'capital markets', which makes no sense from a prudential perspective,[51] but it is difficult to change. Some opposition would come from arbitrageurs, but some would be justified, for two reasons. One reason is that prudential rules for banks are unbearably burdensome,[52] and would asphyxiate non-bank financial intermediaries. This would make it much more difficult to lighten the burden for socially desirable financial innovations. GSEs were an example where, with the benefit of hindsight, regulatory subsidies look mistaken, but other instances show that policymakers are ready to choose forbearance again. Consider e-money firms. They are subject to a lighter regulatory regime[53] and have made enormous progress in African countries in terms of financial inclusion (in the form of mobile-money). Yet mobile network operators that provide financial services via cell phone are 'shadow banks', and, pursuant to the logic above, should be subject to the same prudential rules.

Second, the presence of prudential rules is partly justified on the moral hazard problem resulting from banks' access to public backstops (deposit insurance, or discount window)[54]. If that is the case, firms subject to prudential rules should have access to deposit insurance and liquidity assistance, or only firms that have access to those backstops should be subject to the same rules. Yet lawmakers are not ready to make the connection between backstops and prudential rules explicit, which means that one of the finalistic criteria for prudential rules cannot be used to interpret them.

2. Shadow banking 'monetisation' perspective: regulatory, monetary and macro-prudential perspectives

The 'intermediation' perspective above leaves us with no easy options. Can it get more difficult than that?

Actually, it can. The choices left after analysing the 'intermediation' perspective may be politically unpalatable, but at least they are clear and logical. The 'monetisation' perspective, on the other hand, does not have a roadmap: the problem is the uncontrolled growth of money-like claims, accompanied by a growth of credit, and leverage, whose rigidities can result in endogenous financial fragility.[55] But it is much easier to define the problem than to identify which public institutions could deal with it and what their approach could be.

So far regulatory efforts have focused on transparency and information-gathering, which is a necessary first step.[56] More needs to be known about the volume and functioning of the repo market to avoid past mistakes.[57] However, that in itself does not address the repo market's underlying risks, nor the loss of control by public institutions on the supply of money assets.[58] It merely postpones the need to define the problem, and seek an adequate regulatory solution.

Financial supervisors can control leverage, but their mandate is normally restricted to the supervision of 'entities', or 'firms'. This is difficult to change, because the rules follow a 'micro-prudential' approach, and because the law needs a 'person' to be the subject of obligations. Thus, the supervisory architecture is bound to incur in a 'fallacy of composition', where individual firms may look healthy, but risks grow into the system.

Central banks have a more flexible set of tools to deal with the problem. However, they face great uncertainty, in legal and economic terms. From a legal perspective, a central bank with a narrow mandate can be challenged if it engages in unconventional policymaking. Does the ECB mandate of 'price stability' include financial stability? The mandate's limits were discussed in the *Gauweiler* case before the Court of Justice of the European Union (CJEU) after the German Federal Constitutional Court (FCC) challenged the ECB's ability to do 'whatever it takes' to save the euro. The CJEU declared the initiative valid,[59] but the case exposed the fragility of a central bank's mandate. It is unlikely that the ECB will target measures such as the growth of money-like claims, credit or leverage, absent a predictable impact on price stability.

From an economic perspective it is unclear what a central bank can do. Narrow views of monetary policy have the benefit of simplicity. Now financial stability has gained importance as an influence on the asset price transmission channel, and a source of non-linearities in predictive models.[60] But it is unclear how much influence central banks can have on financial stability variables, especially those concerning the growth of money-like claims. Central banks no longer target 'official' monetary aggregates, let alone aggregates of 'shadow' money-like claims. Even by targeting 'financial stability' as a whole a central bank could undermine its credibility if unsuccessful. Failure to control looks likelier if there are no rules that connect 'shadow' money claims with public institutions (like reserve requirements or deposit insurance do for deposits). The problem's core is that central banks have lost control over a great part of the process of creating money-like claims, which, in turn, distort the signals that ensure a smooth implementation of monetary policy.[61] It seems clear, therefore, that any solution should include restoring some degree of control over the creation of money-like claims (not just tracking their size), but the tools currently available to central banks are inadequate for such a purpose.

This leaves legislative reform, but the prospects do not look good. One possibility would be to eliminate repos' regulatory privilege (the exemption from an automatic stay in insolvency) but this has been rejected by the Financial Stability Board.[62] Another would be to enshrine in the law public institutions' commitment to backstop the repo market, in exchange for having control over its size and

shape (to turn it into something similar to the bank deposit market), but this is not even on the table. Conversely, the rules currently proposed and adopted focus on the transparency of Securities Financing (SF) transactions,[63] which increases the flow of information, but does not, in itself, intervene to make markets safer. While the window of opportunity closes, the features of monetised shadow banking that gave rise to the crisis remain as risky as ever.

Conclusions

Shadow banking's broadness as a concept has two possible readings: one, policymakers are setting an ambitious agenda of reforms, which can only be encompassed using a wide concept; two, policymakers are confused about what to do, and aware of the political difficulties of passing meaningful reform, so they use a concept that is so indeterminate that successes can be more easily sold, and failures more easily disguised.

It is too soon to say which of the two readings is more accurate, but this article offers a sceptical view. First, while the FSB and EU Commission approaches are more rigorous in the identification of the problem, they are still constrained to the 'intermediation' perspective of shadow banking. Within the 'intermediation' perspective, they are much too focused on the problems raised by the 'new' entities (e.g. MMFs, hedge funds or securitisation entities) instead of the role of core players in the system. Furthermore, there is too much emphasis on a narrative of regulatory arbitrage, and too little on the 'institutional design' perspective, which shows that many instances of shadow banking are a direct consequence of policy choices. It is difficult to act surprised by the prominence of GSEs, dealer banks, or repos during the crisis, when their role has been propped up by public policies.

Even with the instances of the problem that respond to an 'intermediation' perspective, and a regulatory arbitrage narrative (e.g. securitisation entities) it is difficult to anticipate the success of reforms: attention shifts as policymakers change their priorities from the mitigation of risk to the mobilisation of financial resources. Thus, it is much more difficult to be sanguine about the 'monetisation' perspective, where not only the choices may be unpalatable, but also the results of reforms may be uncertain.

All this makes caution necessary. As the young mouse in the tale said: 'It is easy to sit down and have big ideas, but who will bell the cat?' 'Shadow banking' is definitely a big idea, one with much more going for it than initially meets the eye. But the way the problem is defined, and the diverging degree of specificity with which policies are laid out makes one suspect that, rather than bringing light to the shadows, we may continue to grasp at it for a while yet.

Footnotes

1. FSB *Shadow Banking: Strengthening Oversight and Regulation. Recommendations of the Financial Stability Board*, 27 October 2011 (hereafter: FSB Shadow Banking 2011). The term was originally coined by Paul McCulley, a senior executive at PIMCO.

2. European Commission Green Paper. *Shadow Banking*, 19 March 2012, COM (2012) 102 final; and *Communication from the Commission to the Council and the European Parliament Shadow Banking – Addressing New Sources of Risk in the Financial Sector* Brussels, 4.9.2013 COM (2013) 614 final.

3. FSB *Shadow Banking* 2011 p. 1.

4. Financial Stability Board *Global Shadow Banking Monitoring Report* 2015, and its dataset. Available at: http://www.financialstabilityboard.org/2015/11/global-shadow-banking-monitoring-report-2015/. The data does not differ vastly with the data of other reports, such as those of the IMF. See IMF Global Financial Stability Report. Risk Taking, Liquidity, and Shadow Banking: Curbing Excess While Promoting Growth October 2014.

5. See, e.g. The Economist "Special Report. Shadow Banking" 10 May 2014, which, together with entities that pose the type of risks described above, includes other entities that simply engage in non-traditional finance.

6. Final Report of the National Commission on the Causes of the Financial and Economic Crisis in the United States (The Financial Crisis Inquiry Report) pp. 47-51.

7. FSA *The Turner Review A regulatory response to the global banking crisis cit.* p. 16.

8. See FSB *Strengthening Oversight and Regulation of Shadow Banking. Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities* 29 August 2013.

9. Charles Goodhart "The Boundary Problem in Financial Regulation" In *The Fundamental Principles of Financial Regulation Geneva Reports* on the World Economy 11, 2009, pp. 69-70.

10. IMF *Global Financial Stability Report* October 2014 Chapter 2: "Shadow Banking around the Globe: How Large and How Risky".

11. Larry Neal "Trust Companies and Financial Innovation, 1897-1914" *The Business History Review* Vol. 45 (1) (1971) p. 37.

12. Walter Bagehot *Lombard Street. A Description of the Money Market* Third edition, London: Henry S. King & Co., 1873, Chapter XI pp. 281-301.

13. Charles Kindleberger *Manias, Panics and Crashes. A History of Financial Crises*. Fifth edition, Wiley, 2005.

14. The FSB has tended to focus on 'transactions'. See FSB *Strengthening Oversight and Regulation of Shadow Banking. Policy Framework for Addressing Shadow Banking Risks in Securities Lending and Repos* 29 August 2013. This lacks precision: a 'shadow banking' transaction is such only if it is used as a money creation device.

15. *Ibid* p. 129.

16. IMF *Global Financial Stability Report* October 2014 Chapter 2: "Shadow Banking around the Globe: How Large and How Risky".

17. Stephanie Bell "The role of the State and the hierarchy of money" *Cambridge Journal of Economics* Vol. 25 (2001) p. 151; Charles Goodhart "The two concepts of money: implications for the analysis of optimal currency areas" *European Journal of Political Economy* Vol. 14, Issue 3 (1998) pp. 407-432.

18. Michael McLeay; Amar Radia; Ryland Thomas "Money creation in the modern economy" *Bank of England Quarterly Bulletin* Q1 (2014) pp. 14-27.

19. Claudio Borio *Monetary Policy Operating Procedures in the United States, Japan and EMU. A Comparative Assessment*, 2000.

20. The Financial Crisis Inquiry Report *cit*. p. 40.

21. Discussing this, but with a skeptical view, see David Reiss "Fannie Mae and Freddie Mac and the Future of Federal Housing Finance Policy: A Study of Regulatory Privilege" *Alabama Law Review* Vol. 61 (2010) pp. 925 et seq.

22. Perry Mehrling; Zoltan Pozsar; James Sweeney; Daniel H Neilson Bagehot was a Shadow Banker: Shadow Banking, Central Banking, and the Future of Global Finance, 5 November, 2013, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2232016

23. See e.g. *SEC's Oversight of Bear Stearns and Related Entities: the Consolidated Supervised Entity Programme*, Report No. 446-A 25 September, 2008.

24. See, e.g. http://www.newyorkfed.org/markets/pridealers_current.html

25. Steven Schwarcz "Shadow Banking, Financial Risk and Regulation in China and other Developing Countries" GEG Working Paper (2013)

26. R. Anton Gilbert "Requiem for Regulation Q: What it did and Why it Passed Away" *Federal Reserve Bank of St. Louis* February 1986, pp. 29-30, 32-33.

27. Kenji Ueda; Yuko Gomi "Shadow Banking in China and Expanding Debts of Local Governments" *Institute for International Monetary Affairs* (2013).

28. 4% of risk-weighted assets for Tier 1 Capital; 8% for Tier 2.

29. David Jones "Emerging problems with the Basel Capital Accord: Regulatory capital arbitrage and related issues" *Journal of Banking and Finance* 24 (2000) 35-58.

30. See e.g. David Ramos Muñoz *The Law of Transnational Securitization* Oxford University Press, 2010, pp. 328-342.

31. That is, the clean break between the transferor (which was normally the originator or sponsor) and the assets. These statutes were widespread among civil law countries, but also present in common law jurisdictions (including some American states or the United Kingdom). See David Ramos Muñoz Bankruptcy-remote transactions and bankruptcy law—a comparative approach (part 1): changing the focus on vehicle shielding *Capital Markets Law Journal* 2015 10 (2) pp. 239-274.

32. The credit channel is only an intermediate tool to achieve price stability. Frederik Mishkin The Channels of Monetary Transmission: Lessons for Monetary Policy" NBER Working Paper No. 5464 (February 1996).

33. Victoria Baklanova; Adam Copeland; Rebecca McCaughrin Reference Guide to U.S. Repo and Securities Lending Markets OFR Working Papers 15-17 I 9 September, 2 (2015). Perhaps the first to focus on repos as a manifestation of shadow banking 'market' and 'monetisation' perspective were Gorton and Metrick. See Gorton, Gary, and Andrew Metrick "Securitised Banking and the Run on Repo." Journal of Financial Economics Vol. 104 (3) (2012) pp. 425–51.

34. In the United States the Bankruptcy Amendments and Federal Judgeship Act 1984 granted bankruptcy protection to repos. In the EU see Directive 2002/47/EC on Financial Collateral Arrangements, especially its article 4.

35. Stijn Claessens, Zoltan Pozsar, Lev Ratnovski, and Manmohan Singh Shadow Banking: Economics and Policy *IMF Staff Discussion Note*, 4 December, 2012 SDN/12/12.

36. Adam Copeland, Darrell Duffie, Antoine Martin, and Susan McLaughlin "Key Mechanics of the US Tri-Party Repo Market" FRBNY *Economic Policy Review* (2012).

37. Loriano Mancini; Angelo Ranaldo; Jan Wrampelmeyer "The Euro Interbank Repo Market" *Swiss Finance Institute Research Paper No. 13-71* (2015).

38. The vehicles were bailed out by their sponsors (Citigroup, BNP Paribas, Bear Stearns) when the crisis struck.

39. Atif Mian & Amir Sufi, The Consequences of Mortgage Credit Expansion: Evidence from the U.S. Mortgage Default Crisis *The Quarterly Journal of Economics* 124 (4) (2009) pp. 1449-1496.

40. Zoltan Pozsar; Tobias Adrian; Adam Ashcraft; Hayley Boesky *Shadow Banking* (2010).

41. Article 251 Regulation 575/2013 on prudential requirements for credit institutions and investment firms, also known as the Capital Requirements Regulation (hereafter: CRR).

42. Articles 243, 244 CRR.

43. Article 408 CRR.

44. Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers (AIFM Directive).

45. Proposal for a Regulation of the European Parliament and of the Council on Money Market Funds. Brussels, 4.9.2013 COM(2013) 615 final 2013/0306 (COD) (the MMF Proposal).

46. Article 25 AIFM Directive, article 33 MMF Proposal

47. See, e.g. articles 19 (independent valuation), 21 (depository), 23 (transparency) AIFM Directive.

48. This is what happened, to some extent, with consolidation accounting rules for Special Purpose Entities, which, after some attempts to use a risk-and-rewards approach, have returned to the criterion of 'control' (i.e. which entity controls the SPE). See the contrast between Standards Interpretation Committee SIC-12 Special Purpose Entities, used to interpret International Accounting Standard (IAS) 39, and the specific provisions on 'Structured Entities' in the currently applicable International Financial Reporting Standards (IFRS) 10 on Consolidated Financial Statements.

49. European Commission *Green Paper. Building a Capital Markets Union* Brussels, 18.2.2015 COM (2015) 63 final, p. 10.

50. Article 4 (1) (1) CRR.

51. Many of the risks are similar, and can be addressed by similar tools (namely, caps on leverage and liquidity requirements). See FSB *Strengthening Oversight and Regulation of Shadow Banking. Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities* 29 August 2013.

52. CRR alone is already 337-pages long, in two-column, small-font format.

53. Directive 2009/110/EC of the European Parliament and of the Council of 16 September 2009 on the taking up, pursuit and prudential supervision of the business of electronic money institutions.

54. Daniel K Tarullo *Banking on Basel*. The Future of International Financial Regulation Peterson Institute for International Economics, 2008, pp. 20-22.

55. Irving Fisher "The Debt-Deflation Theory of Great Depressions" *Econometrica* Vol. 1, No. 4, October, 1933 pp. 337-357; Hyman Minsky *Stabilising an Unstable Economy* Yale University Press, 1986.

56. Reporting and transparency of securities financing transactions European Parliament legislative resolution of 29 October 2015 on the proposal for a regulation of the European Parliament and of the Council on reporting and transparency of securities financing transactions (COM(2014)0040 – C7-0023/2014 – 2014/0017(COD)).

57. For specific studies, see Artak Harutyunyan, Alexander Massara, Giovanni Ugazio, Goran Amidzic Richard Walton "Shedding Light on Shadow Banking" IMF Working Paper WP/15/1 (2015); Deutsche Bundesbank "The shadow banking system in the euro area: overview and monetary policy implications" Monthly Report March (2014); Irene Roibas Millán "Global trends of shadow banking" *BBVA* Global Financial Systems Watch 23 December 2014.

58. See, e.g. Deutsche Bundesbank "The shadow banking system in the euro area: overview and monetary policy implications" Monthly Report March 2014 p. 15.

59. Case C-62/14 *Peter Gauweiler et al v Deutsche Bundestag*, 16 June 2015.

60. Frederic Mishkin "Monetary Policy Strategy: Lessons from the Crisis" NBER Working Paper 16755, pp. 17, 21-30.

61. Deutsche Bundesbank "The shadow banking system in the euro area: overview and monetary policy implications" Monthly Report March 2014

62. FSB *Strengthening Oversight and Regulation of Shadow Banking. Policy Framework for Addressing Shadow Banking Risks in Securities Lending and Repos* 29 August 2013.

63. Regulation on Securities Financing (SFs) Transactions.
See http://ec.europa.eu/finance/financial-markets/securities-financing-transactions/index_en.html

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