Transcending Regulatory Fragmentation and the Construction of an Economy-Society Discourse: Implications for Regulatory Policy Derived from a Functional Approach to Understanding Shadow Banking

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1. Introduction

The interpretation of 'shadow banking' and the mapping of the shadow banking universe is the subject of much academic commentary[1] and policy discussions.[2] This is because 'shadow banking' is often used as a catch-all term to refer to financial activities and transactions that may not be subject to traditional realms of regulation, but the amorphous nature of the term is unsatisfactory for informing debates on regulatory perimeter and policy. Often, a 'functional' approach is suggested in order to understand the nature of financial activities and transactions that are lumped into the 'shadow banking' category. The 'functional' approach focuses on the economic function[3] of the financial activity in question, regardless of the type of institution carrying it out. By looking at the economic function performed by the financial activity in question, one may better be able to ascertain the underlying demand and supply for such function and[4] the risks that such functions give rise to,[5] particularly whether systemic risk is implicated. The approach may also highlight the functional similarities and differences[6] with already-regulated financial activity in order to form views as to the regulatory perimeter for shadow banking activities. The 'functional' approach to shadow banking is therefore a *prima facie* useful approach to surveying the universe of shadow

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[1] Eg Gary Gorton, Andrew Metrick, Andrei Shleifer and Daniel K. Tarullo, 'Regulating the Shadow Banking System' (Brookings Papers on Economic Activity 2010) at 261ff; Morgan Ricks, 'Money and (Shadow) Banking: A Thought Experiment' (2011-12) Review of Banking and Financial Law 731. This will be discussed in greater detail shortly.

[2] Zoltan Pozsar, Tobias Adrian, Adam Ashcraft and Hayley Boesky, 'Shadow Banking' (Federal Reserve Bank of New York Staff Report 2010), Financial Stability Board, 'Shadow Banking: Strengthening Oversight and Regulation' (2011); 'Strengthening Oversight and Regulation of Shadow Banking: An Overview of Policy Recommendations' (2013); *Global Shadow Banking Monitoring Report 2015* (Nov 2015); *Transforming Shadow Banking into Resilient Market-based Finance* (12 Nov 2015).

[3] Financial Stability Board, *Global Shadow Banking Monitoring Report 2015* (Nov 2015).

[4] Stijn Claessens and Let Ratnovski, 'What is Shadow Banking?' (IMF Working Paper 2014) at http://ssrn.com/abstract=2559504.

[5] Eg see Financial Stability Board, *Transforming Shadow Banking into Resilient Market-based Finance* (12 Nov 2015).

[6] See for example Benjamin F Jackson, 'Danger Lurking in the Shadows: Why Regulators Lack the Authority to Effectively Fight Contagion in the Shadow Banking System' (2013) 127 Harvard Law Review 729; Morgan Ricks, 'Money and (Shadow) Banking: A Thought Experiment' (2011-12) Review of Banking and Financial Law 731.

banking and informing the policy-making process in relation to shadow banking activities and transactions at national and international levels.

This article however raises queries as to the limitations of the 'functional' approach, and whether such limitations would ultimately hamper the development of regulatory policy. In particular, we question whether the functional approach is too embedded in market-liberal assumptions, and gives rise to a 'like-for-like' presumption in favour of the design of regulatory methodology. Further, we query whether the functional approach, though conceptually promising, is subject to the legal arbitrage that it seeks to overcome. Nevertheless, this article does not deny the achievements made by adopting the 'functional' approach and suggests how it should be put to optimal use.

The article begins by briefly sketching why commentators and policy-makers have endorsed a 'functional' approach to understanding shadow banking. It then proceeds to examine the nature and origins of the functional approach in financial regulation more generally. We assess the achievements of the functional approach in understanding and mapping shadow banking, followed by exploring the limitations we perceive. We suggest that the optimal application of the functional approach must be stakeholder-inclusive and focused primarily on global surveillance. Such an approach is therefore not frontloaded with implications for policy-making, leaving policy choices to be debated in open and inclusive dialogue, so that the relevant international and national authorities may determine their policy choices. We argue that such an approach is optimal as it is likely to produce more objective factual findings that are unpartisan in nature and accessible to many. We argue that such an approach may be regarded as part of an endeavour towards a near-Habermasian dialogue between economy and society. Such a dialogue is desirable, and may be an important piece in the wider context of the political economy of financial regulation.[7]

2. Why a Functional Approach to Understanding Shadow Banking?

A number of commentators define shadow banking as credit, liquidity or maturity transformation activities that are carried out without recourse to emergency liquidity assistance or a public backstop,[8] i.e. depositary bank-like activities without the usual public sector supporting infrastructure, and often also outside of the usual regulatory frameworks that apply to banks.[9] A rather crude way of looking at shadow banking is to regard all non-bank financial intermediation

[7] See for example Pierre-Hugues Verdier, 'The Political Economy of Financial Regulation' (2013) 88 Indiana Law Journal 1405; Peter Mooslechner, Helene Schuberth and Beat Weber (eds), *The Political Economy of Financial Market Regulation: The Dynamics of Inclusion and Exclusion* (Cheltenham: Edward Elgar 2006).

[8] Tobias Adrian, Adam B Ashcraft and Nicola Cetorelli, 'Shadow Bank Monitoring' (Federal Reserve Bank of NY Staff Report 2013); Stijn Claessens and Let Ratnovski, 'What is Shadow Banking?' (IMF Working Paper 2014) at http://ssrn.com/abstract=2559504; Zoltan Pozsar, Tobias Adrian, Adam Ashcraft and Hayley Boesky, 'Shadow Banking' (Federal Reserve Bank of New York Staff Report 2010).

[9] A number of commentators define shadow banking as money creation activities, mimicking banking but avoiding regulatory constraints, see Benjamin F Jackson, 'Danger Lurking in the Shadows: Why Regulators Lack the Authority to Effectively Fight Contagion in the Shadow Banking System' (2013) 127 Harvard Law Review 729; Margaret M Blair, 'Making Money: Leverage and Private Sector Money Creation' (2013) 36 Seattle University Law Review 417; Thorvald Grung-Moe, 'Shadow Banking: Policy Challenges for Central Banks' (Levy Economics Institute Working Paper 2014) at http://ssrn.com/abstract=2439886.

activities as 'shadow banking', an approach taken by the European Central Bank,[10] for example, albeit mainly for surveillance purposes and not for the purposes of determining regulatory policy as such. Such an approach perhaps more than anything highlights the inadequacies of current regulatory approaches. The Financial Stability Board acknowledges that the existing mode of regulatory thinking revolves around distinguishing the banking from the non-banking sector.[11] Current regulatory approaches are often based on the label of the firm, i.e. making sectoral differentiations between banks, insurers and investment firms.

Moreover, the adoption of conventional regulatory paradigms is inappropriate for understanding shadow banking as it is inaccurate to only view non-bank institutions as part of the shadow banking landscape. This seems to suggest that such institutions are conducting covert or unconventional activities or are not adequately regulated. On the contrary, such institutions may be regulated under a different label, such as investment management, but sectoral regulation may fail to accommodate financial innovation that firms carry out that mimick activities in another regulated sector. Further, many banking institutions are indeed involved in various activities that could be described as shadow banking. Banks achieve much credit, liquidity or maturity transformation outside of the conventional regulatory framework, and these activities may pose risks that are not taken into account of in those regulatory frameworks. Fein[12] is right in pointing out that much of shadow banking is actually conducted by banks and hence existing regulatory labels based on sectoral differentiation do not provide much guidance in understanding the nature of shadow banking and implications for regulatory policy. The limitations in current regulatory definitions leave non-bank institutions that perform economically similar functions out of the regulatory perimeter for banks. Further, unconventional activities undertaken by banks are also arguably beyond the regulatory perimeter. Hence, pockets of regulatory arbitrage can be taken advantage of by financial institutions, due to anomalous differences in regulatory treatment.

Shadow banking involves financial innovation, which on the one hand may be framed as serving genuinely useful purposes, but on the other hand may be regarded as a form of regulatory arbitrage.[13] As such, it may be argued that existing sectoral regulation or the non-bank/bank distinctions are inherently unable to capture the novelty and the boundary-shifting nature of shadow banking activities or transactions. A functional approach to understanding shadow banking is necessary as the regulatory/legal understanding of banking has become obsolete and unduly narrow in scope. Whether or not it is purposed to overcome regulatory arbitrage, the functional approach reaches into the economic structures and models of financial intermediation activity to discern the objectives, methodology and risk profiles of innovative or alternative activity. The adoption of a functional approach in understanding shadow banking transcends the limitations of currently fragmented regulatory approaches adopted in different jurisdictions. It may also be the

[10] European Central Bank, *Report on Financial Structures* (October 2015).

[11] FSB, 'Shadow Banking: Strengthening Oversight and Regulation' (2011).

[12] Melanie L Fein, 'The Shadow Banking Charade' (2013) at http://ssrn.com/abstract=2218812.

[13] Tobias Adrian, 'Financial Stability Policies for Shadow Banking' (Federal Reserve Bank of NY Staff Report 2014).

first step towards framing regulatory policy, but this is where we urge the exercise of caution as will be shortly discussed.

For example, a functional approach to shadow banking is able to unpack the economic purposes of the repo market, while highlighting which aspects of the market are in the 'shadows'- such as referring to characteristics like being *unmonitored, unregulated* (whether or not for the purposes of regulatory arbitrage or avoidance) and *unconventional* (or as an alternative or innovative means of achieving similar economic effects traditionally achieved via other means, usually regulated means). We argue that the functional approach is able to provide an objective narrative of the nature of shadow banking in terms of their economic and legal functions. Such analysis is also able to tease out the 'shadowy' aspects of such activities but we suggest that the functional approach should not be used to justify policy-making based on 'like for like' with reference to what is already regulated, an argument that will be developed in Section 4.

We next turn to how the functional approach can be used to flesh out the nature and key attributes of three shadow banking areas, the rehypothecation markets (repo markets), money market funds and securitisation.

2.1 A Functional Approach to Understanding Repo Markets

In repo markets, highly liquid securities such as government debt may be used to fund short term borrowing by banks and other wholesale sector institutions. For example, in the overnight repo market, financial institutions, usually banks, enter into agreements to sell such securities to a dealer (likely another bank) in order to buy them back the following day at a premium. The dealer is able to rehypothecate the same security instrument for the same short term funding purpose, and on average, Singh[14] reports that the same security instrument is likely to have been rehypothecated 5 times over in the overnight repo market. Such short term funding is essentially perpetuated by constant use of collaterisation to meet short term liabilities, as long as the market for the underlying collateral remains liquid and market confidence remains stable. The repo market is an innovative means of meeting banks' short term funding needs, as traditional deposit inflows may be too inadequate and slow to meet banks' business demands. Such shadow banking creates short term credit and cash for wholesale sector purposes. But on the other hand, it circumvents the existing avenue of funding by deposits and thereby circumvents the regulatory framework governing depositary banking, which could involve meeting a reserve ratio, pre-funding deposit guarantee schemes and meeting microprudential regulatory standards in order to be eligible for public sector backstop.

Repo markets meet the needs of demand for increased avenues of short term funding for banks,[15] by allowing banks to use safe assets to mimick a high quality backstop for cash and credit creation. In

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[14] Manmohan Singh, 'Financial Plumbing and Monetary Policy' (IMF Working Paper 2014) at https://www.imf.org/external/pubs/ft/wp/2014/wp14111.pdf; 'Collateral and Monetary Policy' (IMF Working Paper 2013) at https://www.imf.org/external/pubs/ft/wp/2013/wp13186.pdf.

[15] Stijn Claessens, Zoltan Pozsar, Lev Ratnovski and Manmohan Singh, 'Shadow Banking: Economics and Policy' (IMF Staff Discussion Note 2012) at http://ssrn.com/abstract=2187661; Gary Gorton, Andrew Metrick, Andrei Shleifer and Daniel K. Tarullo, 'Regulating the Shadow Banking System' (Brookings Papers on Economic Activity 2010) at 261ff.

this way, 'safe assets' perform the equivalent function of a 'public backstop' in the market for deposits. This creates a parallel funding system which is relatively unregulated, alongside the regulated deposit markets. It should be noted that safe assets can only perform the equivalent appearance of safety[16] as long as the markets for them remain liquid and confident. Thus, some commentators are concerned that this parallel funding system is not self-sustaining, as market participants may look ultimately to the public backstop enjoyed by many banks, resulting in the creation of dangerous risk connections between the shadow and conventional funding markets. A few commentators[17] are of the view that the franchise value of the borrower bank, which is backed by the public sector backstop, remains the ultimate confidence backstop in shadow banking, even if on the face of it, the quality of the safe assets used as collateral by banks seem to be the equivalent privately created backstop in repo markets. Yet, the boundaries of 'safe assets' are being pushed as a wide range of collateral is used in repo markets including not only government securities but also corporate securities and securitised assets.[18] Further, In tri-party repo transactions, the clearing banks' role in guaranteeing and settling repo transactions is starkly supported by such implicit public sector 'puts'.[19] It may be argued that funding via repo markets is a way of avoiding regulatory compliance and cost associated with the traditional avenue of deposit funding, making regulatory arbitrage an important and relevant consideration in this form of shadow banking.[20] That said, central banks themselves participate actively in repo markets, and set standards for acceptable collateral.

Repo markets have become a fundamental institution of short term funding for the wholesale sector. Applying a functional approach to understand such markets allows us to see them as performing an equivalent economic function of supplying short term funding to depositary banks, using different legal structures and avoiding current regulatory application. Repo markets have been unregulated, framed only by the established institutions of contract, property and bankruptcy law. These legal institutions of rights in property, legal certainty in enforcement against collateral and bankruptcy remoteness provide the conditions for instituting repo markets. The markets have been

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[16] Tobias Adrian, Adam B Ashcraft and Nicola Cetorelli, 'Shadow Bank Monitoring' (Federal Reserve Bank of NY Staff Report 2013; Ricardo J Caballero and Emmanuel Farhi, 'The Safety Trap' (2014) at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2400828; Anna Gelpern and Erik F Gerding, 'Inside Safe Assets' (2015) at https://www.law.ox.ac.uk/sites/files/oxlaw/safeassets090215_submissionversionnames.pdf; Robert J Barro, 'Safe Assets' (Bank of Korea Working Paper 2014) at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2580646.

[17] Manmohan Singh, 'Puts in the Shadow' (IMF Working Paper 2012); Stijn Claessens and Let Ratnovski, 'What is Shadow Banking?' (IMF Working Paper 2014) at http://ssrn.com/abstract=2559504.

[18] Anna Gelpern and Erik F Gerding, 'Inside Safe Assets' (2015) at https://www.law.ox.ac.uk/sites/files/oxlaw/safeassets090215_submissionversionnames.pdf.

[19] Singh (2012), above, and see Christian A Johnson, 'Pushing Shadow Banking into the Light: Reforming the U.S. Tri-Party Repo Market' in Iris H-Y Chiu and Iain MacNeil (eds), *Research Handbook on Shadow Banking* (Cheltenham: Edward Elgar 2017), forthcoming.

[20] Discussed in Erik Gerding, 'The Shadow Banking System and Its Legal Origins' (2011) at http://ssrn.com/abstract=1990816; Emily Lee, 'The Shadow Banking System: Why It Will Hamper the Effectiveness of Basel III' (2015) Journal of International Banking Law and Regulation 373.

unmonitored as being wholesale sector markets outside of the scope of regulation (which has hitherto targeted retail markets), and they allow unconventional activities to flourish, ie credit and money creation based on private 'safe asset' strength instead of institutional strength supported by regulation and the public sector 'put'. Adopting a functional approach to understanding the economic role and legal structures of repo markets, we are able to map the risks of these markets in order to ascertain if its unmonitored and unconventional attributes raise concerns of public interest.

First, we need to discern the scale of such markets and whether there are risks to market stability and order. For example, research into the EU showed that the extent of reliance by banks on short term funding using repo markets for credit transformation is staggering, representing at least 79% of their short-term funding sources.[21] Such findings may indicate the public interest importance of repo markets and perhaps the need for regulators to consider providing public/collective goods such as market order and stability via regulatory frameworks.

Next, we need to consider whether the legal structures in private law ie contract, property and bankruptcy remoteness are able to support notions of market stability and order. Pistor[22] argues that private legal structures favour individualistic actions that may undermine the collective good, and cause market disorder and instability. For example, the loss of market confidence in collateral based on securitised assets in the global financial crisis resulted in individual dealer banks asking for collateral top-ups. Such pressures may force borrowing banks to liquidate good assets in order to meet the top-up requests. Where such pressures are applied across many financial institutions, the collective behaviour of liquidation may create depression for market prices of assets and result in a downward market spiral. The adequacy of private legal structures in sustaining important markets in both good and bad times needs to be questioned.

Further, at a broader and more general level, we need to ask questions regarding the normative and macro-economic implications of such private credit and money creation. Is such private money creation, albeit limited to wholesale institutions, socially desirable, leaving aside the actual micro-economic phenomena of supply and demand?

The functional approach does not translate into a 'like for like' assumption in policy-making. We should not merely liken the repo markets to being functionally equivalent to traditional short-term funding channels for depositary banks and therefore bring on the automatic implications of applying depositary bank regulation to repo funding. Such an approach is inappropriate as depositary bank regulation, based on microprudential requirements and the public back-stop, is founded upon the unsecured nature of bank deposits. In secured repo funding, the relevant legal structures for protection of the creditor continue to play a part and should be harnessed to protect creditors while not triggering systemic market crashes. The functional approach acts as a key analytical tool for

[21] Antoine Bouveret, 'An Assessment of the Shadow Banking Sector in Europe' (2011) at http://ssrn.com/abstract=2027007; Esther Jeffers and Claudia Baicu, 'The Interconnections Between the Shadow Banking System and the Regular Banking System. Evidence from the Euro Area' (CITYPERC paper 2013) at http://papers.ssrn.com/sol3/papers.cfm?abstractfiid=2220822.

[22] Katharina Pistor, 'A Legal Theory of Finance' (2013) 41 Journal of Comparative Economics 315, at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2262936.

understanding shadow banking activities that can highlight potential regulatory arbitrage, but should not be used as a means of merely extending existing regulatory perimeter.

In the EU, a like-for-like approach has not been taken to regulate repo markets like deposit markets. Instead, policy-makers are of the view that private market monitoring should continue to be harnessed, while regulators monitor for future developments that may require policy adjustment. Hence, the new EU Regulation introduces more mandatory transparency in securities financing transactions for counterparties. In particular, transparency is created as to the extent of rehypothecation of collateral. Further, rehypothecation is now based on counter-parties' consent, and such may reduce the number of times of re-use of collateral, mitigating counterparty risk as well as systemic risk.[23] The Financial Stability Board[24] has also proposed minimum haircuts to be applied to collateral to mitigate the risks of re-use.

However, the EU Regulation has not engaged with more fundamental questions such as regulatory frameworks and powers for maintaining market stability, the need for a public backstop, or liquidity provider of last resort as Schwarcz[25] suggests. In this case, the EU Regulation has taken the approach of being incremental and largely non-disruptive. This is a political choice and not necessarily as a result of functionally studying the nature of repo markets. We argue that the EU Regulation may be an example of inadequate consideration of the full implications of a functional study into the nature of repo markets. In Section 5, we will explore how the functional approach to understanding shadow banking can be put to more optimal use in order to more powerfully inform policy-making.

2.2 A Functional Approach to Understanding Money Market Funds

Money market funds is another example of what may be found in the shadow banking realm. Money market funds (MMFs) are funds that invest in short term wholesale money market instruments such as short term treasury bills, certificates of deposit, municipal and corporate debt securities, which cannot be directly accessed by the retail market. These funds have arisen in the US due to regulations capping deposit interest rates,[26] and they cater to the demand of savers who seek safe avenues with a better rate of return than bank deposits. The MMF may be regarded as a form of regulatory arbitrage, allowing depositors to save in a highly liquid instrument mimicking the on-

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[23] See Regulation of the European Parliament and of the Council on Transparency of Securities Financing Transactions and of Reuse and Amending Regulation (EU) No 648/2012 (27 Nov 2015) at http://data.consilium.europa.eu/doc/document/PE-41-2015-REV-1/en/pdf.

[24] FSB, *Regulatory Framework for Haircuts on Non-Centrally Cleared Securities Financing Transactions* (12 Nov 2015).

[25] Steven Schwarcz, 'The Case for a Market Liquidity Provider of Last Resort' (2009) at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1346542.

[26] At 5.5% in the 1960s, see Section 11 of the Banking Act of 1933 (12 U.S.C. 371a), which is implemented by Regulation Q (12 CFR part 217), until the cap was lifted in the Depositary Institutions Deregulation and Monetary Control Act 1980. See also Matthew P Fink, 'Historical Rationale for US Money Market Funds', in Viktoria Baklanova and Joseph Tanega (eds), *Money Market Funds* (Oxford: Oxford University Press 2013) at chapter 4; Viktoria Baklanova, 'Money Market Funds- An Introduction to the Literature' (January 2010) at https://www.law.berkeley.edu/files/bclbe/Intro_MMF_Literature.pdf.

demand liquid characteristic of deposits, while enjoying a higher rate of return. Nevertheless, MMFs also cater for genuine wholesale sector demands such as institutional cash pools (i.e. institutions who desire a relatively safe parking place for their assets, meeting quick liquidity demands), whose other less favourable alternative would be uninsured deposits. The chief attraction in MMFs is the promise of redemption at constant net-asset value, thereby guaranteeing savers' capital safety, and distinguishing MMFs from other investment funds. Hence, MMFs perform the functional equivalent of depositary banks' ability to provide a full intermediation service of savers' capital. MMFs are able to do so based on the perceived safety and liquidity of MMF holdings- largely government securities and highly liquid corporate covered bonds and repo paper. The relative safety of such instruments lies in their very short maturity terms.

As long as the issuers of paper that MMFs are holding remain solvent and the markets for such paper remain liquid, MMFs' mimicking of the safety and liquidity attributes of deposits would hardly be called into question. The backstop for MMFs' promises is nevertheless less strong than the public backstop of emergency liquidity facilities and deposit guarantee for bank deposits. The key shadow banking implication for MMFs lies in the expectations created by MMFs in mimicking the deposit-like characteristics of safety and liquidity. Such expectations, if disappointed, could result in a major loss of market confidence and market panic. Such an episode occurred during the global financial crisis 2007-9. During the crisis in September 2008, MMF investors were sceptical that a number of MMFs could actually maintain a net asset value of USD$1 and started to withdraw from the funds in droves. This is because a number of MMFs held Lehman Brothers' repo paper, and the failure of Lehman on 15 September 2008 sharply brought into question the value of such paper backed by Lehman's assets as collateral. A high profile MMF, the Reserve Primary fund, which held a substantial quantity of Lehman repo paper, 'broke the buck' and resiled from its promise to maintain net asset value at USD$1.[27] The fund froze redemptions and was at the peak of its crisis valued at 97 cents on the dollar.

Applying a functional approach to understanding MMFs, we see that the economic function of the MMF is to provide liquidity intermediation and transformation through markets instead of through banking institutions. In a way, it could be said that under normal conditions, the MMF may be *safer* than banking institutions in providing such liquidity transformation, as MMFs do not lend long like banks do. They hold relatively short-term assets. The characteristics of the MMF do not necessarily lend it to a like-for-like comparison with bank deposits entailing the full application of bank prudential regulation to the MMF.[28] The EU has in the early 2000s considered that MMFs could be classified as UCITs, ie collective retail investment funds that are available to retail investors.[29] Thus, for MMFs that are structured as UCITs, the UCITs regime of prudential and conduct of business

[27] 'Reserve Primary Money Fund Falls Below $1 a Share', *Bloomberg* (16 Sep 2008).

[28] There are prudential requirements imposed on MMFs that are UCITs but they are relatively light compared to banks, ie at a level of 125,000 euros of initial capital and 0.02% of own funds as to assets in the UCITs fund.

[29] Undertakings in Collective Investments in Transferable Securities Directive 2009. See Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS) (recast).

regulation would apply. However, the MMF is not like an investment fund as, although it is a form of collective pooling of investors' capital to purchase assets, the MMF makes promises of higher liquidity than investment funds in general, and could therefore be more susceptible to run risk than investment funds in general. The UCITs Directive's provisions on fund valuations and redemption[30] that are applicable to all collective investment schemes therefore do not directly address MMFs' extremely liquid promises and the guarantee of constant net asset value. In other words, the EU's approach to treating some MMFs as UCITs is characteristic of the sub-optimal sectoral approach to understanding shadow banking discussed earlier- a form of categorisation that attempts to fit financial innovation into existing brackets without addressing their specific economic functions and risk profiles.

A functional approach to understanding MMFs should address the particular *unconventional* aspects of MMFs as a means of financial innovation, and whether they give rise to concerns for being relatively *unmonitored* or *unregulated.* We need to question whether the liquidity assumptions made by MMFs are sound to support their business model, and whether private market monitoring is sufficient to ensure that MMFs can meet their liquidity promises. We need to ask if there is any deficit in investor protection or investor education in relation to the business model of MMFs.

Post-crisis, reforms have been introduced in the US and EU to regulate the MMF more robustly. These measures, as will be discussed shortly, take different positions but are broadly in the vein of a like-for-like approach, framing MMFs to fit into one of the established categories of financial regulation. The EU[31] has taken the approach of forcing MMFs to be treated more like investment funds, and therefore regulated as such. MMFs are now required to maintain a floating net-asset value or to erect redemption gates, therefore limited in their former ability to mimick deposit-like attributes, so as to manage market expectations with regard to their risks.[32] In the US, a different approach is taken to ensure that MMFs can more robustly meet the constant net asset value and liquidity promises. MMFs are now more tightly regulated in terms of the types of liquid securities they can invest in, and would also be required to compute weekly mark-to-market 'shadow' fund

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[30] Arts 76, 84 of the UCITs Directive 2009.

[31] The European Commission has proposed a Regulation to prescribe a floating net asset value for money market funds as well as prudential requirements in the form of capital adequacy, see European Commission, *Proposal for a Regulation of the European Parliament and of the Council on Money Market Funds /* COM/2013/0615 final - 2013/0306 (COD) */* (Sep 2013). In March 2015, the impact study commissioned by the European Parliament was of the view that although the reforms may move most MMFs to a variable net asset value and investors' expectations could be managed, the systemic risk implications of the run on MMFs is not entirely mitigated, see European Parliament, *Money Market Funds: Impact Assessment of Substantive EP Amendments* (March 2015) at http://www.europarl.europa.eu/RegData/etudes/STUD/2015/547545/EPRS_STU(2015)547545_EN.pdf. Nevertheless Parliament has in April approved the draft Regulation with amendments.

[32] The EU approach is critically discussed in Viktoria Baklanova and Joseph Tanega, 'European Money Market Funds: A Comparative Analysis of U.S. And European De Facto and De Jure Micro-Processes' (2013) at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2342680, comparing with the US approach.

values for transparency purposes. [33] The US approach therefore tends to preserve MMFs' deposit-mimicking characteristics and the regulatory approach is in the vein of prudential regulation. Although the functional analysis of MMFs has given rise to two different responses- the EU response likening MMFs to investment funds and therefore extending the regulatory perimeter in that direction; and the US response likening MMFs to deposits and therefore extending more prudential-like regulation in composition restrictions and risk valuation, the two regulatory approaches have not transcended the limitations of a like-for-like approach. This arguably hampers the potential of a functional analysis, as MMFs are clearly different from deposits and investment funds. MMFs are different from deposits because they rely on market liquidity that is not available to much of bank deposit transformations; and they are different from investment funds as they are not savings products and offer liquidity horizons that meet different wholesale needs. We argue that the functional analysis could be more optimally deployed to analyse the economic functions of MMFs and perhaps be able to inform a more *suis generis* approach to regulating them where relevant.

2.3 A Functional Approach to Understanding Securitisation

The functional approach to understanding shadow banking can also provide the first steps to constructing a narrative of novel financial transactions or institutions that have no existing equivalents, such as securitisation which took off since the late 1990s,[34] and recent developments in credit and investment intermediation in peer-to-peer lending and equity crowdfunding.[35]

Gerding[36] defines shadow banking as novel financial transactions that pool financial assets, restructure risks and cash streams and create new assets that theoretically achieve low risk and high liquidity. Such novel financial instruments are often the culmination of stages of processes in

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[33] 'SEC adopts money market reform rules' (23 July 2014) at http://www.sec.gov/News/PressRelease/Detail/PressRelease/1370542347679#.VOH54fmsWSo. Securities Exchange Act 1934, section 270, rule 2a-7 at https://www.sec.gov/rules/final/2014/33-9616-rule-2a-7-amendments.pdf. See also The Squam Lake Group, Martin Baily et al, 'Reforming Money Market Funds' (2011) at http://ssrn.com/abstract=1740663; and critical discussion in Jeffrey N Gordon and Christopher M Gandia, 'Money Market Funds Run Risk: Will Floating Net Asset Value Fix The Problem?' (2014) Columbia Business Law Review 313.

[34] Erik Gerding, 'The Shadow Banking System and Its Legal Origins' (2011) at http://ssrn.com/abstract=1990816; Tobias Adrian and Hyun Song Shin, 'The Shadow Banking System: Implications for Financial Regulation' (Federal Reserve Bank of NY Staff Report 2009); Gary Gorton, Andrew Metrick, Andrei Shleifer and Daniel K. Tarullo, 'Regulating the Shadow Banking System' (Brookings Papers on Economic Activity 2010) at 261ff, and see also Pierdomenico de Gioia-Carabellese, 'Securitisation and Structured Finance: From Shadow Banking to Legal Harmonisation' in Iris H-Y Chiu and Iain MacNeil (eds), *Research Handbook on Shadow Banking* (Cheltenham: Edward Elgar, 2017), forthcoming.

[35] See extensive discussions in Edward F Greene and Jeffrey M Amico, 'Shadow Banking: Peer-To-Peer Lending and Equity Crowdfunding', Mingfeng Lin, 'Out of the Shadow? The Status and Promise of Peer-To-Peer Lending and Other Forms of Crowdfunding' and Will W Shen, 'Regulating Shadow Banking in China: Specific Issues in P2P Lending in the Industrial Landscape' in Iris H-Y Chiu and Iain MacNeil (eds), *Research Handbook on Shadow Banking* (Cheltenham: Edward Elgar, 2017), forthcoming.

[36] Erik Gerding, 'The Shadow Banking System and Its Legal Origins' (2011) at http://ssrn.com/abstract=1990816.

financial intermediation undertaken by different intermediary institutions at each stage. This definition is very much based on the nature of securitisation, possibly the most innovative and controversial of financial innovations that have come to dominate the concept of shadow banking itself. The example of securitisation highlights the wide scope of shadow banking- from alternative means of achieving traditional economic functions in credit, liquidity or maturity transformation to completely new means of financial risk management and product development.

Securitisation can be carried out at various levels of complexity[37] and opacity, but put briefly, it involves turning traditionally illiquid assets, such as residential mortgages on banks' loan books, into less risky and more liquid assets for investors in the market. This is achieved by transferring the illiquid assets to special purpose vehicles which then structure and package these assets into securities. Securitisation often involves structuring assets with tranches of varying degrees of credit risk, in order to improve the overall risk profile of the asset. The securities are then warehoused with another layer of financial intermediaries before being distributed and placed with investors. Securitisation achieves risk transformation of illiquid and perhaps less attractive assets into investible securities, at the same time generating fee income for originating lenders, and freeing up banks' lending capacity and mitigating the cost of compliance with capital adequacy requirements in regulation.[38] With the help of credit rating agencies, these novel assets are often given high credit ratings based on the supposed improvement in their risk profile, and are sold widely in wholesale markets.[39] Institutional investors have been attracted to such products and so have banks in general, as the high credit ratings attached to such products allow them to be regarded as good collateral in the repo markets.

Genuine advantages in risk management can be achieved by securitisation as credit risk can be more efficiently spread in the markets, and banks' credit creating capacity for socially useful economic activity can be enhanced.[40] However, the structuring of assets can be a complex and opaque process, making quality difficult to discern. The prospect of securitisation may also allow lenders to originate loans with less care, having a myopic focus only on the immediate fee income that can be generated through the bringing to market of securitised products.[41] Defects in risk quality may not be detected

[37] See discussion in Richard E Mendales, 'Collateralized Explosive Devices: Why Securities Regulation Failed to Prevent the CDO Meltdown, and How to Fix it' [2009] University of Illinois Law Review 1359.

[38] Gerding (2011), above.

[39] Claire A Hill, 'Why Did Rating Agencies Do such a Bad Job Rating Subprime Securities?' (2010) 71 University of Pittsburgh Law Review 585.

[40] See European Commission, *Action Plan on Building a Capital Markets Union* (30 Sep 2015) at http://ec.europa.eu/finance/capital-markets-union/docs/building-cmu-action-plan_en.pdf; European Central Bank, *The Case for a Better-Functioning Securitisation Market in the European Union* (Oct 2014) at https://www.ecb.europa.eu/pub/pdf/other/141013-abs-synthesis-responses.en.pdf.

[41] Which became the main business model of Northern Rock, exposing it to the risk of unviability in its business model when the market for mortgaged backed securities and repo markets trading in such securities dried up in late 2007. As many mortgage backed securities contained tranches of subprime mortgage loans originating from the US, subprime defaults shook investor confidence in these securitised products whose value became uncertain and difficult to determine given its complex and bundled structure. See DG Mayes and G Wood,

by credit rating agencies given that the structures in securitised assets may be sufficiently complex and opaque.

Securitised assets involved different types of credit products such as residential mortgage loans, auto loans, and even types of personal unsecured loans and student loans. One popular category of securitised assets marketed before the global financial crisis 2007-9 was the mortgage-backed securities, largely based on prime and sub-prime mortgage loans originating in the US. In fact, securitisation was the main means by which banks would make loans to highly dubious borrowers in terms of credit-worthiness, as they would be purchased by Fannie Mae[42] and Freddie Mac. Fannie was an agency that was originally formed by the post-Depression government to buy loans off banks so that banks could be freed to participate in economic reconstruction. Freddie was subsequently created to prevent Fannie from having a monopoly in the market. The market for mortgage-backed securities grew to be substantial in the pre-crisis period, estimated at about USD£1 trillion.[43]

The global financial crisis 2007-9[44] was however triggered by a collapse in market confidence in the value of such mortgage-backed securities, especially the more complex collaterised obligations and their synthetic versions, held by many financial institutions worldwide. As many mortgage backed securities contained tranches of subprime mortgage loans originating from the US, subprime mortgage defaults shook investor confidence in these securitised products whose value became uncertain and difficult to determine given their complex and bundled structure. Liquidity in these products dried up, and this affected other markets such as repos where these products are used as collateral. Many banks and institutions faced short term funding squeezes due to the seizure in repo markets and also suffered losses on their books from such asset holdings. Where collateral had to be realised or topped up, book losses quickly became real losses as assets were fire sold in a falling and increasingly illiquid market. Further, such losses had knock on effects on banks' capital adequacy positions and this further exacerbated deteriorating market confidence in banks and institutions holding such securitised assets. As a result the US banking sector was shaken by one insolvency, Lehman Brothers in September 2008, and a few near failures were averted only because of government intervention that brokered private sector deals, such as Merrill Lynch, Washington Mutual and Bear Stearns. The UK featured a similar scenario, with government bailout of Northern Rock, Halifax Bank of Scotland and Royal Bank of Scotland. Although these UK banks were not

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'Lessons from the Northern Rock Episode' (2008) 114 International Economics 5; Financial Services Authority, 'The Supervision of Northern Rock: A Lessons Learned Review' (March 2008) at http://www.fsa.gov.uk/pubs/other/nr_report.pdf.

[42] Ramon P DeGennaro, 'Government Sponsored Entities: Fannie Mae and Freddie Mac' (2008) 14 Journal of Structured Finance 18; Richard K Green and Ann Schnare, 'The Rise and Fall of Fannie Mae and Freddie Mac: Lessons Learned and Options for Reform' (2009) at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1509722.

[43] See http://www.federalreserve.gov/econresdata/releases/mortoutstand/mortoutstand20090331.htm.

[44] See for example discussion in FSA, *The Turner Review* (March 2009) at chapter 1, at http://www.fsa.gov.uk/pubs/other/turner_review.pdf; George K Zestos, *The Global Financial Crisis: From US Subprime Mortgages to European Sovereign Debt* (Oxford: Routledge 2015); Howard Davies, *The Financial Crisis: Who is to Blame* (London; Polity 2010) at Part E.

directly affected by losses in holdings of US mortgage-backed securities, Northern Rock[45] and HBOS[46] were affected by short term funding squeezes particularly because they ran highly risky business models relying excessively on the repo market. RBS[47] was affected by the enormous holdings of US mortgaged-backed securities in ABN-AMRO which it acquired shortly before the crisis.

The adverse effects of securitisation related in the global financial crisis story of 2007-9 were due to inadequate risk profiling and pricing of such innovative products in an era of over-confidence in the transformative efficiencies of shadow banking. Further, as the wholesale sector is intimately inter-connected in different transactional contexts, adverse knock-on effects were able to translate into several rungs of morbid blows for financial institutions,[48] which were inadequately foreseen and risk-managed. Commentators are only beginning to unpack the fragilities[49] caused by interconnections in the financial sector, whether within a group or between financial institutions.[50] Hence, learning lessons from the global financial crisis, regulatory policy in relation to securitisation deals not only with the investor protection aspects of such innovative products but also the risk implications of such products for prudential and systemic risk regulation.

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[45] FSA, *The Supervision of Northern Rock: A Lessons Learned Review* (March 2008) at http://www.fsa.gov.uk/pubs/other/nr_report.pdf.

[46] House of Commons and House of Lords, Parliamentary Commission on Banking Standards, *An Accident Waiting to Happen: The Failure of HBOS* (4 April 2013).

[47] FSA, *The Failure of the Royal Bank of Scotland: Financial Services Authority Board Report*' (December 2011) at http://www.fsa.gov.uk/static/pubs/other/rbs.pdf.

[48] Augusto de la Torre and Alain Ize, 'Regulatory Reform: Integrating Paradigms' (2010) 13 International Finance 109; Sara Hsu, Jianjun Li & Yanzhi Qin, 'Shadow Banking and Systemic Risk in Europe and China' (CITYPERC Working Paper 2012) at http://ssrn.com/abstract=2215233; Stefan Luck and Paul Schempp, 'Banks, Shadow Banking, and Fragility' (ECB Working Paper 2014) at http://ssrn.com/abstract=2479948; Steven Schwarcz, 'Regulating Shadow Banking' (2012) 31 Review of Banking and Financial Law 619; Dan Awrey, 'Complexity, Innovation, and the Regulation of Modern Financial Markets' (2012) 2 Harvard Business Law Review 235.

[49] such as a combination of liquidity, leverage, linkages and losses, see Monica Billio and others, 'Measuring Systemic Risk in the Finance and Insurance Sectors' (March 2010) http://web.mit.edu/alo/www/Papers/billio_etal.pdf; Rosa Lastra, 'Systemic Risk, SIFIs and Financial Stability' (2011) 6 Capital Markets Law Journal 197; Nassim Nicholas Taleb and Charles S Tapiero, 'The Risk Externalities of Too Big to Fail' (November 2009) NYU Poly Research Paper <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1497973>.

[50] For example, illiquidity, linkages among financial institutions, leverage and business scope are considered most highly correlated with systemic risk; above and also supported by Gianni De Nicolo and Myron L Kwast, 'Systemic Risk and Financial Consolidation: Are they Related?' (2002) 26 Journal of Banking and Finance 861. See also Christopher Thorson, 'Proposals To Reduce Systemic Risk Compared' (2009) 28 Review of Banking and Financial Law 258 who proposes that contagion common denominators are liquidity access, leverage, credit relationships and maturity mismatches. Tao Sun, 'Identifying Vulnerabilities in Systemically-Important Financial Institutions in a Macro-financial Linkages Framework' (May 2011) IMF Working Paper W11/111 <http://www.imf.org/external/pubs/ft/wp/2011/wp11111.pdf>.

First, securitised products are now subject to prescriptive disclosure regimes in the pre-sale stage if marketed to the public.[51] However, regulation has not moved away from the *unregulated* nature of the product if marketed only to sophisticated investors. In general, securities marketed to only sophisticated investors are exempt from prospectus regulation as sophisticated investors and issuers can govern their relations by contract, thus not in need of regulatory standardisation in investor protection. One would have thought that in the wake of the global financial crisis, which was based on misjudgement of novel securitised assets by the wholesale sector, that regulatory policy may be rethought in the area of sales of securitised products to wholesale sector sophisticated investors. However, the functional analysis of securitised assets has been applied to liken such products to securities. In securities regulation, investor protection is at its most extensive for retail investors and hence the reforms to the EU Prospectus Directive and Commission Regulation reflect that. However, the same position of exempting sophisticated investors and issuers from prospectus regulation remains, although problems have been highlighted in the crisis.

We are of the view that adopting a 'like-for-like' approach to extending securities regulation to securitised products based on the existing regime seems not to have achieved much progress in regulatory thinking. This is in spite of securitised products being *unconventional* even for wholesale sector institutions that may not fully grasp the risks of their transactions. One may argue that as securitised products rely on credit ratings assigned by external credit rating agencies to appeal to investors, the EU regulation of credit rating agencies[52] in terms of their governance and rating methodologies provides the relevant support for investor protection in the wholesale market. Further, investors may be able to sue credit rating agencies for losses caused by inaccurate ratings if such is a result of a gross breach of regulatory duties.[53] However, such regulation is not specific to securitised products, and the threshold for investor litigation is relatively high.

Nevertheless, the risk implications of such complex products were recognised and in the area of prudential regulation, unprecedented conservative treatment has been ushered in for securitised products. New policy thinking for securitised products was achieved in the realm of prudential regulation. The Basel Committee immediately regarded holdings of securitised assets to be in need of high risk weightings so that banks will be subject to appropriate capital adequacy requirements for holding them. A minimum floor of 25% risk weight is applied to all securitised assets with a maximum of 1250% applied if certain underlying information regarding the quality of such assets is unclear.[54] The EU also introduced a mandatory 5% risk retention rule[55] for originating institutions so

[51] Commission Delegated Regulation (EU) No 486/2012 of 30 March 2012 amending Regulation (EC) No 809/2004 as regards the format and the content of the prospectus, the base prospectus, the summary and the final terms and as regards the disclosure requirements.

[52] Regulation (EC) No 1060/2009 of the European Parliament and of the Council on credit rating agencies amended as of 2011, 2013.

[53] Art 35a, above.

[54] BIS, *A Global Regulatory Framework for More Resilient Banks and Banking Systems* (2011) at http://www.bis.org/publ/bcbs189.pdf (Basel III).

[55] Capital Requirements (amended) Directive 2009, and recast Capital Requirements Regulation 2014.

that they may be incentivised to exercise care in lending even if such loans are to be subsequently securitised. Risk retention is intended to ensure the maintenance of quality in securitised assets. Further, longer-term regulatory thinking[56] is being developed in new European initiatives that intend to overhaul securitised products regulation and their markets.

The functional analysis of shadow banking can usefully provide a starting point for understanding the economic functions and legal structures in shadow banking in order to discern if there are any issues with respect to the aspects of being *unregulated, unmonitored* and *unconventional.* In some cases, such analysis has given rise to 'like-for-like' treatments with equivalent existing mechanisms or transactions. Where that has occurred, pockets of regulatory arbitrage may be exposed, but the extension of regulatory perimeter may not always be apt due to finer distinguishing features. Hence, 'like-for-like' approaches can be susceptible to being relatively unimaginative and lacunae in policy thinking continue to be observed. That said, we acknowledge that a 'like-for-like' approach is not always sub-optimal as it is useful for discerning where areas of regulatory arbitrage should be brought under more oversight and control. Regulatory policy thinking has not overall been so limited, as discussed in the examples above, but reforms such as securities financing transparency and the risk-weighting and risk retention of securitised assets are incremental rather than fundamental in nature. In sum, we are of the view that the functional analysis of shadow banking can support a more comprehensive and discursive process for evaluating financial innovation, feeding into more thoroughly considered and perhaps innovative regulatory reform. We next discuss the origins of the functional approach and some of its inherent biases and limitations. We then suggest how such limitations and biases may be mitigated to make the functional analysis of shadow banking serve more optimal purposes towards financial regulatory policy.

3. The Functional Approach and its Origins

This Section now charts the development of the functional approach in financial regulation more generally. We argue that the functional approach to financial regulation was first discussed in the context of global movements towards restructuring financial regulatory architecture, principally in the adoption by many jurisdictions of a single regulator model for regulatory supervision. We highlight the development of the UK Financial Services Authority (FSA) as an example of such movement, and also argue that the ultimate restructuring of the FSA has not eclipsed the functional approach to financial regulation. In this discussion, we point out that the adoption of the functional approach to financial regulation is a manifestation of regulatory capitalism- a political perspective that embraces market capitalism and liberal approaches while at the same time supporting the growth of administrative structures and rules to overcome market failures, supply public goods or govern behaviour for public interest purposes. As such we argue that the functional approach has an inherent bias towards market liberalism and financial innovation that serves market needs. We will argue in Section 4 that such a bias needs to be overcome so that the functional approach can be

[56] European Commission, *Action Plan on Building a Capital Markets Union* (Sep 2015) at http://ec.europa.eu/finance/capital-markets-union/docs/building-cmu-action-plan_en.pdf; and *Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL laying down common rules on securitisation and creating a European framework for simple, transparent and standardised securitisation and amending Directives 2009/65/EC, 2009/138/EC, 2011/61/EU and Regulations (EC) No 1060/2009 and (EU) No 648/2012* (30 Sep 2015) at http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52015PC0472.

developed into a more robust analytical framework for evaluating financial innovation underlying shadow banking.

Many commentators are of the view that the advent of the single regulator in financial services is a response to the changing structure of the financial sector. Although universal banking has been practised in much of Continental Europe, the sectoral differentiation in the US financial sector between banking, insurance and investment services such as brokerage, underwriting, portfolio management, advice etc only began to change in the wake of the Gramm-Leach-Bliley Act 1999,[57] which allowed the consolidation of banking and investment services in the US, paving the way for mergers and acquisitions, and the eventual growth of large banking groups[58] such as JP Morgan and Citigroup, and the 5 large global investment banks Goldman Sachs, Morgan Stanley, Merrill Lynch, Lehman Brothers and Bear Stearns. In the UK, the competitive pressures in the changed landscape for global financial services also pushed traditionally dominant retail banks such as Barclays and the Royal Bank of Scotland to grow significant investment banking operations to foray into global financial competition. As financial institutions increasingly became global financial supermarkets and one-stop shops[59] for a range of financial services and products,[60] financial institutions are crossing sectoral boundaries in their business lines and no longer operating under traditional institutional labels. As such, the time became ripe for considering if regulatory structures based on institutional lines were still fit for purpose. Further, more coherent thinking has been developing with regard to the overall objectives of governing finance and what public interests need to be met.[61] The integration and consolidation of regulatory ideology in finance seemed compatible with the single regulatory structure. The single regulator arguably provided an attractive response to overcome regulatory and supervisory gaps, more closely matching the industry structure.[62]

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[57] Pub.L. 106–102, 113 Stat. 1338, enacted 12 November 1999.

[58] Arthur E Wilmarth Jnr, 'The Transformation of the Financial Services Industry: 1975-2000, Competition, Consolidation and Increased Risks' (2002) University of Illinois Law Rev 215, Jerry W Markham, *A Financial History of the United States V 1* (2001) at 99ff; Jerry W Markham, 'Banking Regulation: Its History and Future' (2000) 4 N.C. Banking Inst. 221; 'Super-Regulator: A Comparative Analysis of Securities and Derivatives Regulation in the US, UK and Japan' (2003) 28 Brooklyn Journal of International Law 319.

[59] Jerry W Markham, 'Super-Regulator: A Comparative Analysis of Securities and Derivatives Regulation in the US, UK and Japan' (2003) 28 Brooklyn Journal of International Law 319; Eilis V Ferran, 'Examining the UK's Experience in Adopting a Single Financial Regulator Model' (2003) 28 Brooklyn Journal of International Law 257.

[60] for example, banking products having insurance add-ons, and asset management arms of banks using bank branches to market their investment products.

[61] Charles Goodhart and others, *Financial Regulation: Why, How and Where Now?* (London: Routledge 1998).

[62] Eilis V Ferran, 'Examining the UK's Experience in Adopting a Single Financial Regulator Model' (2003) 28 Brooklyn Journal of International Law 257; Eddy Wymeersch, "The Structure of Financial Supervision in Europe: About Single, Twin Peaks and Multiple Financial Supervisors" (2006) at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=946695; Richard A Abrams and Michael W Taylor, 'Issues in the Unification of Financial Sector Supervision' IMF Working Paper 2000.

The UK Financial Services Authority, a single regulator was set up in 2000[63] on the premises that it was well-placed to provide effective regulation in the context of changing business models in the financial sector. A single regulator is poised to provide efficient supervision, enjoying economies of scale, bird's eye perspectives, cross-fertilisation of thinking and regulatory coherence in applying consistent risk-based frameworks in regulating and supervising the financial sector as a whole.[64] The FSA adopted a functional approach to regulating financial services. This means that the regulatory perimeter was no longer determined according to the label of the institution concerned, such as being a bank, insurance or securities firm, but extended to any institution that is carrying out any of the activities listed in the Financial Services and Markets Act.[65] Hence, an institution may carry out different forms of financial intermediation business but would need to be approved and supervised by the same regulator based on each function that falls within the scope of the regulatory perimeter. The FSA's functional approach is illustrated by the *FSA v Anderson*[66] case. The case involved the FSA taking enforcement action against private individuals who set up a credit intermediation business for a close circle of high net worth contacts. The FSA was of the view that such credit intermediation, based on guaranteed returns of capital and interest, amounted to deposit-taking, which is an activity that falls within the regulatory perimeter. As the individuals concerned were not approved by the FSA, the activity was prohibited. The characterisation of the activity in that case was based on a functional approach to understanding the economic and legal nature of the activity.

The adoption of the functional approach meant that financial intermediation activities are not confined to be carried out only by 'labelled' incumbent institutions. In the *Anderson* case above, it is theoretically possible for the individuals to have sought FSA authorisation, and such authorisation may theoretically be obtained if the individuals satisfy threshold conditions for taking deposits.[67] So, in theory, deposit-taking is not confined to deposit-taking banks under a functional approach to financial regulation. It may thus be argued that the adoption of a functional approach to financial regulation is based on market liberalism as market incumbents in the 'sector' can be challenged by entities traditionally outside of the 'sector' as long as regulatory approval can be obtained.

On the one hand, a functional approach to financial regulation captures within its scope all forms of organisations or institutions, however rudimentary, based on the economic and legal functions of the activities carried out, and is therefore *extensive* in nature; yet on the other hand, the functional

[63] The political context is however important as a change of government from Conservative to Labour took place in 1997, and triggered major institutional reforms to dismantle old and undesirable ways of doing things. One such example is financial regulatory architecture reform, the establishment of the Financial Services Authority to govern financial services, taking away banking supervision from the Bank of England, which has been placed in compromised light due to two bank failures in the 1990s, and replacing a patchwork and largely self-regulatory system for investment regulation under the Securities and Investments Board and the self-regulatory trade organisations established under Conservative rule. See generally Julia Black, *Rules and Regulators* (Oxford: Clarendon 1998) at chapters 2 and 3.

[64] FSA, *A New Regulator for the Millenium* (2000) at http://www.fsa.gov.uk/pubs/policy/p29.pdf.

[65] Section 19, and Schedule 2.

[66] (2010) EWHC 599 Ch.

[67] Such as capital adequacy requirements, and the fitness of persons managing the business.

approach has the potential to allow a wider scope of organisations and persons to carry out financial activities than traditionally thought of, and is thus *liberal* in nature. One point to note however is that the functional approach to financial regulation has not yet led to a movement of internal rationalisation of regulatory rules and making them consistent and coherent. The substantive rules have been developed over years of sectoral differentiation, giving rise to largely separate bodies of regulatory rules for depositary banks, insurance companies, investment in securities, collective investments and investment intermediation.[68]

This article argues that the functional approach to financial regulation is market-liberal in character. It may however be argued that the functional approach has been used largely to crack down on innovative activities, and thus the regulator (the FSA in particular) has only used the functional approach in a paternalistic way, drawing into the regulatory perimeter 'borderline' and unregulated activities. This seems far from a market-liberal approach. For example, the prohibition of the credit intermediation service provided in the *Anderson* case above would seem contrary to a market-liberal approach. We are of the view that the use of the functional approach to crack down on activities that are innovative but unregulated, has largely been confined to the retail sector. This is especially important, as the FSA had an express mandate for consumer protection, and was especially vigilant in functionally characterising retail sector financial innovation in such a way that consumer protection would be achieved. For example, the FSA was very vigilant in monitoring innovative investment schemes based on collective pooling of monies and risk, and enforcing against such schemes if they were unregulated, as they would need to be under Schedule 2 of the Financial Services and Markets Act 2000. Over the years, various unregulated arrangements that may be perceived as 'borderline' have been held to fall within the regulatory perimeter for collective investment schemes under the Financial Services and Markets Act,[69] thus requiring authorisation and oversight. They include purchases of real estate interests by individuals under an understanding that there would be a centrally managed process to secure planning and development permission over the plot;[70] purchases of sub-lease interests in foreign real estate for the purposes of securing income generated by the land in terms of agricultural or carbon credit income;[71] services organised to place horse-racing bets on behalf of subscribers;[72] collective financing of a film venture;[73] collective financing to acquire patent rights.[74] The above innovative schemes, many of which were not authorised but marketed to retail consumers, were prosecuted to closure by the FSA. However, we argue that the FSA took a different and much lighter-touch approach to the wholesale financial sector as the relevant participants in these markets needed less top-down investor protection, and it is in the wholesale financial markets that much financial innovation such as securitisation and short

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[68] This is the case with the US as well as the EU and individual jurisdictions such as the UK.

[69] Section 235.

[70] *In re Sky Land Consultants Plc* [2010] EWHC 399 (Ch); *FSA v Asset LI Inc* [2014] EWCA Civ 435.

[71] *FCA v Capital Alternatives Ltd and Ors* [2014] EWHC 144 (Ch); [2015] EWCA Civ 284.

[72] *Financial Services Authority v Fradley* [2005] EWCA Civ 1183 CA.

[73] *Raymond Bieber v Teathers Ltd (in liquidation)* [2012] EWHC 190 (Ch).

[74] *Brown 7 Ors v Innovator One Plc and Ors*[2012] EWHC 1321

term funding based on repo paper arose.[75] In such markets, unconventional, innovative but functionally similar financial intermediation activities have been allowed to flourish, and carveouts from regulatory intervention have been applied, such as the exemption from prospectus regulation for securities issues to sophisticated investors as mentioned above. Further, hedge and private equity funds were also treated as outside of the regulatory framework (for retail collective funds) as they catered only for sophisticated investors.[76]

We argue that the functional approach to financial regulation, in the pre-crisis era, is actually supportive of liberal approaches to financial innovation and the development of new markets, especially in the wholesale sector. It is able to support the rise of alternative institutions, intermediation methodologies and markets, paving the way for the development of 'bank disintermediation'[77], a phenomenon that refers to the undertaking of innovative and alternative means of financial intermediation beyond that assumed by banks, therefore opening up the choice options of financial market participants in the wholesale sector. The functional approach to financial regulation served the policy of differentiating between the wholesale and retail sectors, allowing market liberalism to flourish while dedicating resources to consumer protection in the retail sector. We argue that even though the UK has now restructured its single financial regulator into two regulators, the Prudential Regulation Committee under the Bank of England[78] that oversees microprudential compliance by large banks and insurers, and the Financial Conduct Authority that continues to oversee consumer protection and choice, as well as market order and stability,[79] the functional approach to financial regulation has persisted.

Although the single regulator structure has been dismantled in the UK, many jurisdictions such as Germany, the Scandivanian countries, Korea etc have retained this regulatory architecture pre and post-global financial crisis 2007-9.[80] The regulatory architecture in the UK has been partly blamed for not having been able to cope with certain risks in the UK financial markets that culminated in the banking crisis of 2008-9,[81] but it is the deregulatory bias in UK financial regulation that has come

[75] FSA, *The Turner Review* (2009) at chapter 1, at http://www.fsa.gov.uk/pubs/other/turner_review.pdf.

[76] Such are the pre-crisis regimes, eg Art 3, EU Prospectus Directive 2003, and the lack of a regulatory framework for alternative fund managers until the Alternative Investment Fund Managers Directive was introduced post-crisis in 2011.

[77] Steven Schwarcz, 'Regulating Shadow Banking' (2012) 31 Review of Banking and Financial Law 619; 'Regulating Shadows: Financial Regulation and Responsibility Failure' (2013) 70 Washington and Lee Review 1781.

[78] Bank of England and Financial Services Bill 2015.

[79] Financial Services Act 2010 amending the Financial Services and Markets Act 2000.

[80] See Table 5 in James R Barth, Gerard Caprio Jnr and Ross Levine, 'Bank Regulation and Supervision in 180 Countries from 1999 to 2011' (2013) at http://faculty.haas.berkeley.edu/ross_levine/papers/Bank_Regulation_and_Supervision_Around_the_World_15JAN2013.pdf.

[81] Light-touch regulation blamed in *The Turner Review* (2009), above.

under fire,[82] and not the functional approach to financial regulation itself. Ferran was also of the view that the demise of the UK FSA was due to political change rather than the ideological failure of integrated financial services regulation.[83] The UK has now adopted a twin peaks[84] approach, empowering the Bank of England (the PRA, or Prudential Regulation Committee) to oversee the safety and soundness of systematically important financial institutions such as most banks and large insurers, while leaving the Financial Conduct Authority (FCA) to deal with conduct of business regulation. The two bodies are dedicated to different objectives, allowing them to pursue their respective aims with more focus, while being compelled under legislation to coordinate in such a way as to maintain coherent oversight and supervision in key areas.[85] In particular, the FCA still has a comprehensive picture of the conduct of business across all financial intermediation activity as the institution of the two authorities does not follow sectoral lines. Hence, the functional approach to financial regulation has not been departed from but arguably refined, as (a) the regulatory jurisdiction of the PRA is based on the risk profile generated by the economic and legal functions of financial intermediation activities and (b) the formal coordination apparatus for the PRA and FCA ensures that a form of integrated supervision (which is rooted in the functional perspective of financial services) remains important.

Having now sketched the nature of the functional approach in financial regulation, the next Section argues that there are two limitations inherent in the functional approach. First, the roots of the functional approach in market liberalism may obscure certain possibilities in regulatory policy thinking. Second, the functional approach has been used too readily in favour of the presumption towards a 'like-for-like' approach in regulatory thinking, thus limiting thorough and innovative regulatory policy solutions. Third, the function approach in financial regulation has been used to favour deregulation for the wholesale sector leading up to the crisis, and is still susceptible to arguments in legal arbitrage that influence regulatory policy-making.

4. Limitations of the Functional Approach

First, we argue that the functional approach to shadow banking is fundamentally rooted in market liberalism. A market-liberal paradigm accepts as legitimate the economic functions that various shadow banking mechanisms serve as meeting supply and demand needs. The social utility of such mechanisms are seldom critically questioned.

Although the functional approach to shadow banking frames shadow banking activities in terms of their economic functions and the nature of the demand that gives rise to such activities, the

[82] MK Brunnermeier and others, *The Fundamental Principles of Financial Regulation* (Geneva Reports on the World Economy, London: Centre for Economic Policy Research 2009).

[83] Eilis V Ferran, 'The Break-up of the Financial Services Authority' (2011) 31 Oxford Journal of Legal Studies 455.

[84] See eg discussion in Giorgio Di Giorgio and Carmine Di Noia, 'Financial Market Regulation and Supervision: How Many Peaks for the Euro Area?' (2003) 28 Brooklyn Journal of International Law 463.

[85] Sections 3E to 3R, Financial Services and Markets Act 2000 as amended by the Financial Services Act 2010.

approach does not arguably take us further beyond accepting such demand as legitimate.[86] In other words, as long as the demand and supply are a demonstration of the working of market forces, the micro-economic behaviour is not subject to further critical inquiry as to its social utility. For example, the EU's adoption of the Securities Financing Transactions Regulation demonstrates that policy-makers accept the necessity of the repo markets, and therefore aim to provide an environment for such markets to be conducted with more confidence by participants. More fundamental questions are not raised about the normative desirability of such short term funding, and whether it is ideal for such markets to be constituted upon private legal structures. Indeed the functional approach may achieve the effect of 'normalising' or 'mainstreaming' shadow banking activities in due course. The functional analysis of shadow banking activities is inherently biased towards providing justification for such activities as long as the economic function of the activities can be clarified, therefore mitigating the exotic and *unconventional* perspectives related to such activities, lending support for such activities to be treated as regular.[87] The regularisation of such shadow banking activity can be achieved by the reduction of its *unregulated* or *unmonitored* nature, by extending some form of regulatory perimeter over it. In this way, the market-liberal bias in the functional approach frames the role of regulation as a legitimising tool- regularising shadow banking activity through regulatory capitalism.

Further, we are also of the view that the market-liberal bias in the functional approach shapes regulatory policy in the process of informing it. The resulting regulatory policy is generally incremental in nature rather than representing fundamental change. The mandatory transparency in relation to collateral in the Securities Financing Transactions Regulation is an example of such incremental regulatory policy that seeks not to be too intrusive for the markets, as market participants are still relatively free to conduct their activities as long as the required transparency is provided. We are of the view that the market-liberal bias in the functional approach to understanding shadow banking is likely to result in regulatory policy that is pro-market and facilitative in nature. The danger is that such regulatory policy could subsequently be discovered to be inadequate, needing intrusive corrective actions in due course. An example would be the extensive regulation of over-the-counter derivatives markets[88] after decades of self-regulation ended in the wake of the global financial crisis of 2007-9.

Moreover, incremental regulatory policy that is pro-market will entail an expansion of the list of legitimate risks that financial institutions can undertake. This could inadvertently bolster their systemic risk profile and the necessity of the public sector backstop for them. This is not an unfamiliar phenomenon as it has happened before- in the mainstreaming of universal banking in the US by the abolition of the Glass-Steagall Act. In spite of the Glass-Steagall restrictions, the US financial sector has developed over many years shadow banking solutions to avoid the restrictions,

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[86] Tobias Adrian and Hyun Song Shin, 'The Shadow Banking System: Implications for Financial Regulation' (Federal Reserve Bank of NY Staff Report 2009);

[87] Stijn Claessens, Zoltan Pozsar, Lev Ratnovski and Manmohan Singh, 'Shadow Banking: Economics and Policy' (IMF Staff Discussion Note 2012) at http://ssrn.com/abstract=2187661.

[88] In the form of mandatory central clearing and prudential requirements such as margin and collateral, in the European Markets Infrastructure Regulation 2013.

and hence the abolition of the restrictions merely reflected the needs of market forces. However, the abolition has allowed universal banking to grow more legitimately and explosively in the US, greatly increasing the systemic risk profile of very large global banking institutions.[89]

Indeed some commentators who have applied a functional analysis to study shadow banking argue that many aspects of shadow banking need the equivalent of established backstops for existing financial intermediation mechanisms. They suggest how backstops may be extended accordingly.[90] It is at this point we should question the market-liberal bias in functionally recognising the legitimacy of the shadow banking activity- is it right to assume that society as a whole should support such extension of backstops, effectively extending its social contract with depositary banks to shadow banking entities?

However, it could be argued that the market-liberal bias in functionally recognising the legitimacy of shadow banking activity is consistent with the social benefits of market choice and with EU policy in market integration. 'Normalising' shadow banking activities and placing them on an even level-playing field as mainstream regulated financial intermediation means that they can be more appropriately priced and openly offered in the markets, while being subject to an extent of regulation and supervision.[91]

Further, it is likely the incremental nature of regulatory policy discussed above would draw heavily upon a "like-for-like" approach in functionally equivalent existing regulation. This is because a 'like-for-like' approach derives from an existing regime and is less likely to give rise to controversy. Further, a 'like-for-like' approach is favoured by the EU, as the European Commission supports achieving consistent regulation in similar issue areas across similar financial intermediation. This approach has already been taken in the imposition of consistent European remuneration regulation across banks, investment firms, mutual and alternative (hedge and private equity) funds,[92] and conduct of business regulation for the purposes of investor protection (such as in transparency, communications or acting in the best interests of investors).

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[89] Suzanne McGee, *Chasing Goldman Sachs: How the Masters of the Universe Melted Wall Street Down and Why They'll Take us to the Brink Again* (New York: Crown Business 2010).

[90] Stijn Claessens and Let Ratnovski, 'What is Shadow Banking?' (IMF Working Paper 2014) at http://ssrn.com/abstract=2559504; Gary Gorton, Andrew Metrick, Andrei Shleifer and Daniel K. Tarullo, 'Regulating the Shadow Banking System' (Brookings Papers on Economic Activity 2010) at 261ff; Jonathan Macey, 'It's All Shadow Banking Actually' (2012) 31 Review of Banking and Financial Law 593 arguing that in which case equivalent regulatory regimes such as microprudential regulation should be imposed, Daniel L Otto and Robert R Reed, 'Repos, Bailouts, and Instability in the Shadow Banking System' (2015) at http://ssrn.com/abstract=2589381; Morgan Ricks, 'Shadow Banking and Financial Regulation' (2010) at http://ssrn.com/abstract=1571290; Steven Schwarcz, 'Regulating Shadow Banking' (2012) 31 Review of Banking and Financial Law 619.

[91] Jonathan Macey, 'It's All Shadow Banking Actually' (2012) 31 Review of Banking and Financial Law 593.

[92] Art 90, Capital Requirements Directive 2013; Art 9, Markets in Financial Instruments Directive 2014, see UK PRA Rulebook Para 15, FCA Handbook SYSC 19A, Art 14a, Undertakings in Collective Investment Transactions Directive 2009 as amended in 2014; Art 13, Alternative Investment Fund Managers Directive 2011, FCA Handbook SYSC 19B.

We argue that a 'like-for-like' approach in regulatory policy is not always optimal, as it can in some cases result in over-extension of the regulatory perimeter where not necessarily warranted; or under-inclusion. Under-inclusion is a likely phenomenon if the 'like-for-like' extension results in significant regulatory burdens, and lobbyists mount arguments in legal arbitrage to challenge the 'like-for-like' comparisons. Such is the case regarding asset managers who have resisted systemic risk regulation being extended to them,[93] although they are increasingly conducting a range of financial intermediation activities that give them enormous power with savers and the markets. We argue that the functional analysis should not be immediately applied in 'like for like' comparisons to inform regulatory policy. It should instead be framed in a more open and discursive manner so that more discourse on evaluating financial innovation can be stimulated, and can subsequently feed into more holistic policy thinking about shadow banking, mitigating the market liberal bias inherent in the functional approach.

Where EU policy-making is concerned, a number of over-extended regulatory areas have been observed, as seeking regulatory convergence may result in over-inclusive regulatory regimes that are not always appropriate. For example, why should hedge and private equity managers' remuneration, which is heavily subject to arms-length contractual scrutiny, be regulated in accordance with the same prudential concerns that affect banks that have a large retail footprint?[94] Further, Payne has also criticised the indiscriminating treatment of hedge and private equity funds in the EU Alternative Investment Fund Managers Directive 2011.[95] Further, the drive for regulatory consistency is likely to increase regulatory cost across the board and make financial services more expensive to access. At worst, extensive and over-inclusive regulatory regimes could cause financial services to become so costly or inaccessible that gives rise to financial repression and the migration of shadow activity to further unregulated channels.[96]

It may be argued that an apt price has to be paid for a better regulated financial services sector where regulatory arbitrage and the false sense of cost-effectiveness are reduced.[97] Further, as financial regulation has moved towards more precautionary applications,[98] it could be argued that a

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[93] 'Fund managers to escape 'systemic' label', *Financial Times* (14 July 2015).

[94] Remuneration structures may serve unique incentivising effects towards abnormal performance, see Ivan Guidotti and Istvan Nagy, 'The Role of Remuneration Structures in Hedge Fund Performance' (2013) at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2138860; Robert C Illig, 'The Promise of Hedge Fund Governance: How Incentive Compensation Can Enhance Institutional Investor Monitoring' (2008) 60 Alabama Law Review 41.

[95] Jennifer Payne, 'Private Equity and its Regulation in Europe' (2011) 12 European Business Organization Law Review 559.

[96] Li Guo and Daile Xia, 'In Search of a Place in the Sun: The Shadow Banking System with Chinese Characteristics' (2014) European Business Organisation Law Review 387; Dan Awrey, 'Complexity, Innovation, and the Regulation of Modern Financial Markets' (2012) 2 Harvard Business Law Review 235.

[97] Benjamin F Jackson, 'Danger Lurking in the Shadows: Why Regulators Lack the Authority to Effectively Fight Contagion in the Shadow Banking System' (2013) 127 Harvard Law Review 72;

[98] Judgment-based supervision, eg see Bank of England and PRA, *Our Approach to Banking Supervision* (2011, 2013), also in the concept of macro-prudential regulation, see discussion in Bank of England, 'The Role of

"like-for-like" extension of regulatory perimeter may mitigate future problems.[99] One such example is in the large exposures reforms carried out in the EU[100] and by the Basel Committee.[101] This regime deals with capping banks' exposures to a single or connected group of institutions in proportion to banks' equity capital position, so that such exposures would not result in failure risk for the bank if a counter-party should fail. The Basel Committee has proposed relatively conservative thresholds for the cap, for large exposures to be limited to no more than 15% of the bank's own funds. The EU now counts exposures to shadow banking entities as being caught by the definition of large exposures, and applies a wide definition of connected institutions to limit concentrations of credit risk. As the scope of shadow banking entities is widely defined, the "like-for-like" analysis underlying the extensive application of the large exposures regime has closed gaps in the regulatory net.

Turning to under-inclusion, such is usually underpinned by regulatory arbitrage and powerful lobbying, which can indeed be supported by the functional analysis too. Where functional equivalencies between financial activities are rationalised at a rather high level, for example the money creation function of the repo market for short term funding and the money creation function undertaken by banks based on deposit-taking, we may argue that the same microprudential regulation that applies to bank lending on the basis of deposits should apply to money market lending on the basis of collateral. But as differences in the legal structures of the market are fleshed out, it may be argued that the high-level 'like for like' comparison is misleading. In the repo market, the laws of property and security rights operate and so counterparties are more protected than unsecured depositor/creditors. One can argue therefore that the confidence and stability mechanisms needed are different in such markets, for example such markets need a sufficient supply of safe assets to use as collateral,[102] and perhaps a framework to ensure that collateral remains valuable in its use and re-use. Such needs are different from the needs of unsecured depositors. Where the 'like-for-like' application of regulatory policy becomes no longer persuasive, it is possible for regulatory thinking to be developed in a completely novel manner, or regulatory

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Macroprudential Policy' (November 2009) Bank of England Discussion Paper http://www.bankofengland.co.uk/publications/Documents/other/financialstability/roleofmacroprudentialpolicy091121.pdf; SG Hanson, AK Kashyap and JC Stein, 'A Macroprudential Approach to Financial Regulation' (November 2010) Chicago Booth Research Paper No 10-29, also see Hilary J Allen, 'A New Philosophy for Financial Stability Regulation' (2013) 45 Loyola University Chicago Law Journal 173; Iman Anabtawi and Steven Schwarcz, 'Regulating Ex Post: How Law Can Address the Inevitability of Financial Failure' (2013) 92 Texas Law Review 75 discussing the appropriate balance between ex ante and ex post regulation.

[99] Although Kaal et al argue that post-crisis reforms are generally too stringent, only asking for relaxation in normal times. Wulf A Kaal, 'Dynamic Regulation of the Financial Services Industry' (2013) 48 Wake Forest Law Review 791. Hence how effective precautionary measures could be in financial regulation remains uncertain.

[100] EBA, *Limits on Exposures to Shadow Banking Entities Which Carry Out Banking Activities Outside a Regulated Framework under Article 395(2) of Regulation (EU) No 575/2013* (14 Dec 2015) at https://www.eba.europa.eu/documents/10180/1310259/EBA-GL-2015-20+GL+on+Limits+to+Exposures+to+Shadow+Banking+Entities.pdf/f7e7ce6b-7075-44b5-9547-5534c8c39a37.

[101] Basel Committee, *Final Standard for Measuring and Controlling Large Exposures* (15 April 2014).

[102] Gary Gorton, Stefan Lewellen and Andrew Metrick, 'The Safe Asset Share' (2012) 102 The American Economic Review 101.

policy may settle for the minimal and uncontroversial. The latter approach has arguably taken in the European Securities Financing Transactions Regulation 2015.

The functional analysis of shadow banking can give rise to the teasing out of different legal and economic structures, and therefore the distinguishing of shadow banking activities from similar but regulated activities. This may entail the development of specific rules and regimes for distinct shadow banking activities, tending towards being narrow in scope, and perhaps even substantively undisruptive to existing practices. In such a landscape, although regulation may continue to develop specifically to catch up with the distinguishing features of various activities, which is a tenet of regulatory capitalism as discussed earlier, such regulation may nevertheless develop in pockets and incrementally, leaving new gaps where regulatory arbitrage and financial innovation could occur. We observe that although the Financial Stability Board has a general interest in shadow banking,[103] its recommendations have inevitably boiled down to specific and distinct activities, shaping special regulatory regimes for rather specific activities such as money market funds and securities financing.[104] In this way, although the functional approach may promise of inclusivity in thinking about shadow banking, regulatory implementation may be dogged by lobbying and legal arbitrage and therefore become more specific and arguably under-inclusive.

Most importantly however, we are of the view that the functional approach to studying shadow banking, which is inherently biased towards market liberalism, and perhaps places too much faith in a form of regulatory capitalism that is incremental instead of fundamental, would inevitably shut out normative and critical queries in relation to the desirability and social utility of shadow banking activities. For example, even if shadow banking activities perform liquidity transformation on a larger scale than existed in markets before, is such liquidity an unequivocal good? Is the chasing of ever more liquidity and even hyper-liquidity in speedy trading environments a desirable phenomenon?[105] Or as Blair[106] insightfully suggested, shadow banking activities are often aimed to increase the level of leverage in the financial sector and real economy, but is credit creation an unequivocal good? We will further extrapolate this argument in relation to the specific example of securitisation below.

In the US, securitisation has made voluminous mortgage lending possible, and the expansive growth of home loans is regarded as a legitimate economic activity, supported by the policy of encouraging home ownership. The demand for home loans, giving rise to financial innovation that facilitates ever more such lending is not questioned.[107] Securitisation transactionalises and changes the nature of long-term relationships in residential mortgage lending, and therefore affects underwriting

[103] FSB, *Global Shadow Banking Monitoring Report 2015* (Nov 2015).

[104] FSB, 'Strengthening Oversight and Regulation of Shadow Banking: An Overview of Policy Recommendations' (2013); FSB, *Transforming Shadow Banking into Resilient Market-based Finance* (12 Nov 2015).

[105] John Kay, 'A fixation on liquidity is not healthy for financial markets', *Financial Times* (17 Sep 2013).

[106] Margaret M Blair, 'Making Money: Leverage and Private Sector Money Creation' (2013) 36 Seattle University Law Review 417.

[107] Arnoud W A Boot and Anjan V Thakor, 'Commercial Banking and Shadow Banking: The Accelerating Integration of Banks and Markets and its Implications for Regulation' (2013) at http://ssrn.com/abstract=2318623.

standards and investor protection. Although long-term credit transactions create illiquidity for banks that keep these assets in its books, can securitisation really transform the nature of such relational and illiquid assets into investible and more liquid assets on investment markets? Investment markets require much more standardisation and genericity to generate a trading environment i.e. liquidity for investors with varying time horizons, from short to long term. How would such marketisation affect the nature of the long-term underwriting and its relational dimension? As the collapse of mortgaged-backed securities and their complex versions such as collaterised debt obligations has shown in the global financial crisis, the financial alchemy is only incompletely achieved[108]- the markets were ultimately unsure of the underlying characteristics that would sustain the liquidity of such products. Hence, did securitisation and marketisation of long-term illiquid products only produce a temporary and false bubbly market that led to overdrive in the real economy?

Fundamentally, the normative question as to the appropriateness of marketising essentially long-term relationship products is not asked. Financial innovation may meet the needs of market demand, but if such financial innovation merely capitalises on greed to meet immediate market demand in a way that is ultimately unsustainable, a normative query on the nature of such innovation ought to be raised.[109] Further, the nature of market demand for home ownership should also perhaps be questioned. The functional approach to understanding securitisation has not produced a fruitful conversation on normative aspects such as the dilemmas between the demand for home ownership and issues of consumer affordability and financial literacy,[110] the question of whether residential real estate is being overly commoditised and effects on asset price inflation.[111] As a matter of economic policy, universal home ownership is not pursued as a matter of course everywhere. Many Continental European countries such as France and Germany pursue policies that ensure affordable rental housing and adequate tenant protection, and treat home ownership in a more nuanced manner.[112] At a broader level, policy questions should be asked as to the desirability and contrary implications for encouraging home ownership.

Asking the normative questions above also help us to forge a constructive conversation in where securitisation may play a viable role for needs in the real economy. Perhaps asset classes that are shorter term in duration may make better securitised products, and perhaps greater standardisation

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[108] Alan Moreira and Alexi Savov, 'The Macroeconomics of Shadow Banking' (2015) at http://ssrn.com/abstract=2310361.

[109] Broader questions on the social utility of finance and alternative structural visions for finance ought to be raised, see Tamara Lothian, 'Law and Finance in the Context of Crisis: The Imperative of Structural Vision' (2014) at http://works.bepress.com/tamara_lothian/16/.

[110] Toni Williams, 'Empowerment of Whom and for What? Financial Literacy Education and the New Regulation of Consumer Financial Services' (2009) 29 Law and Policy 226; Ronen Shamir, 'The Age of Responsibilization: On Market-Embedded Morality' (2008) 37 Economy and Society 1.

[111] Eg see Robert Boyer, 'Is a Finance-led Growth Regime a Viable Alternative to Fordism?' (2000) 29 Economy and Society 111.

[112] See for eg, John Kay, *Other People's Money* (London; Profile Books) at pp148-150.

can be achieved to provide adequate comfort for investors. The EU is pushing for a rejuvenation of the securitised products market where such products are highly standardised and transparent.[113] Such policy is based on expanding the financing options for small and medium-sized enterprises and nascent conversations are only beginning to take place on the objectives of real economy financing, and the different channels that can be involved in such intermediation in a manner that is sustainable and responsible.

This Section has suggested that although the functional approach overcomes regulatory fragmentation in studying the nature of shadow banking activities, one needs to beware of the market liberalism bias inherent in the approach which may obscure the raising of more fundamental and critical questions in relation to the nature of demand and supply of financial innovation. This may result in the design of minimal regulatory policies that are pro-market and arguably under-inclusive in regulating and supervising expansions in institutional and market risk. Further, the functional analysis of shadow banking could also result in an application of “like-for-like” regulatory policy which may be unnecessarily over-inclusive and precludes more imaginative thinking about regulatory solutions. The next Section therefore makes some suggestions as to the optimal application of the functional approach in regulatory policy-making.

5. The Optimalities of the Functional Approach and Conclusion

We have argued that the functional approach to understanding shadow banking overcomes conventional analysis limited by fragmented regulatory frameworks based on sectoral differentiation, and is able to provide an account of economic objectives and risks associated with shadow banking activities. We however warn that this approach may be inherently biased towards market liberalism and should not be used to preclude normative queries regarding the social utility of certain financial activities. We are also of the view that regulatory policy-makers have used this approach in a “like-for-like” application of existing regulation in many areas, which is not always optimal.

We argue that the above limitations of the functional approach can be overcome by a deliberate channelling of the functional approach into a rational communicative framework that is inclusive, so that financial innovation and its merits can be fully debated upon, to feed into regulatory policy-making. Such a rational communicative framework would ensure that a wide range of stakeholders can provide a voice in the financial regulatory policy process, which has hitherto been dominated by the financial sector and policy-making elites in the national and international spheres.[114]

[113] European Commission, Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL laying down common rules on securitisation and creating a European framework for simple, transparent and standardised securitisation and amending Directives 2009/65/EC, 2009/138/EC, 2011/61/EU and Regulations (EC) No 1060/2009 and (EU) No 648/2012 (Sep 2015) and background in European Commission, *Action Plan on Building a Capital Markets Union* (30 Sep 2015) at http://ec.europa.eu/finance/capital-markets-union/docs/building-cmu-action-plan_en.pdf.

[114] See chapter 3, Mads Andenas and Iris H-Y Chiu, *The Foundations and Future of Financial Regulation* (Oxford: Routledge 2014) and extensive citations therein.

Such a rational communicative framework can be built upon the work of Jürgen Habermas.[115] Habermas was of the view that a utopian democracy is based on human communication and discourse that is achieved at an objective, truthful and rational level. Therefore, Habermasian discourse is built upon the sharing of facts, the rational communication of knowledge without bias of political or partisan position, and inclusive discourse which results in a mutual understanding and achievement of consensus.

The functional approach to understanding shadow banking is intended to achieve fact-finding in understanding shadow banking activities, their economic functions and legal structures. Such analysis can be undertaken in a neutral and objective manner, seeking to foster a body of knowledge. We argue that such a body of knowledge should be fostered independent of power domination, interest preferences, and arguments rooted in national legal structures. Such a body of knowledge should be placed on a transnational platform and be accessible to all. It should form the basis for inclusive and imaginative discourse, opening up for all aspects of discussion relation to fundamental objectives and purposes of shadow banking activities, such as: inclusiveness and exclusiveness in such activities; what benefits entail and who enjoys them; what risks entail and who bears them; what aspects of private law apply and whose interests are protected; what aspects of regulatory law apply and whose interests are protected; and what changes in any of the above are needed. This discourse is necessary for us to evaluate the nature and development of financial innovation underlying shadow banking so that a mutual understanding can be reached in terms of achieving a democratic social response to determining the desirability of such innovation. The communicative framework for shadow banking would prevent a discourse on financial innovation from being artificially prevented or circumscribed by financial sector elites. It would also form a more robust basis for regulatory policy, so that regulatory thinking is not confined to existing structures and parameters, and can be more thorough, well-founded and imaginative.

One commentator[116] observes that the conversation between economy and society has become disengaged in the era of neo-classical and laissez-faire markets. Such disengagement has led to narrow-minded perspectives of economic activities, markets and objectives, such as the 'rational economic man', over-reliance on market competition as a governance mechanism and on private and not regulatory law. The rejuvenation of such a conversation would be in line with the Polanyian vision of social embedment of markets and the economy.[117] In this light, using the functional approach to understanding shadow banking can be constructed as part of the broader context of

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[115] J Habermas, *The Theory of Communicative Action: Vol 1*, *Lifeworld and System: A: Critique of Functionalist Reason* (Boston, Beacon Press, 1984 and 1987); *Communication and the Evolution of Society* (Boston, Beacon Press, 1979); *Moral Consciousness and Communicative Action* (Cambridge, MA, MIT Press, 1990); *Justification and Application: Remarks on Discourse Ethics* (Cambridge, MA, NT Press,1993), *Between Facts and Norrms: Contributions to a Discourse Theory of Law and Democracy* (Cambridge, Polity Press, 1996).

[116] Alexander Ebner, 'The Regulation of Markets: Polanyian Perspectives' in Bettina Lange, Fiona Haines and Dania Thomas (eds), *Regulatory Transformations: Rethinking Economy-Society Interactions* (Oxford: Hart 2015) at 31ff.

[117] Alexander Ebner, 'The Regulation of Markets: Polanyian Perspectives' in Bettina Lange, Fiona Haines and Dania Thomas (eds), *Regulatory Transformations: Rethinking Economy-Society Interactions* (Oxford: Hart 2015) at 31ff.

economy-society interaction and conversation, ushering in a more inclusive and more informed form of capitalism, ameliorating the adverse effects associated with finance capitalism.[118] Further, Decker[119] observes that the limitations of neo-classical economic models have been revealed over the years as being narrowly focused and excessively insular. Hence, the rise of theories in economic justice, distribution and of behavioural economics for example shows how the social is necessarily re-embedded in the economy and markets.

It may be argued that the objectivity in constructing such a Habermasian economy-society conversation on shadow banking cannot be perfectly achieved, as we need to use economic and legal frameworks to constitute the knowledge relating to shadow banking. Hence, Law or Economics as a body of established ideas and perspectives could be used to distort the communication. Further, it may be argued that a communicative framework is not possible as it assumes all participants are equal. It may be argued that shadow banking issues only affect wholesale sector users and macroprudential regulators, and so why should others be allowed to shape regulatory policy-making in this area? Further, the level of sophistication required for understanding shadow banking is not compatible with the average level of education and financial literacy in the general demographics, of even developed countries. It may also be argued that ignoring differences in national legal structures in constructing a Habermasian discourse is wrong, as that artificially assumes that individual jurisdictions have not already made certain political, economic or social choices in respect of how rights ought to be governed. The transnational level of the Habermasian discourse may be used to subvert the democratic choices already made in individual jurisdictions.

The rational communicative framework as part of the re-engagement of economy-society conversations may be an ideal that is impracticable, or ironically prone to tyranny. This does not however mean that we cannot start by using the functional analysis of shadow banking in such a way as to contribute to such a re-engagement with a wider social landscape, in phases or stages. The market liberal bias in the functional analysis can be questioned in the rational communicative framework, so that contrary voices may provide constructive and alternative views to the normative desirability of certain financial innovations. Mainstream citizenry, such as the Occupy movement,[120] arose briefly to reflect social interest in engaging with fundamental social discourse on finance, and should not be shut out by the use of jargon. Such discussions can be important for regulatory policy-making for example, in prohibiting certain products or services altogether or in more boldly proscribing their scope. Regulation has not made negative substantive judgments on financial innovation so far, even if procedural regulation may be used to manage risks, such as the Volcker

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[118] For example see critical accounts of finance capitalism in Susan Long and Burkard Sievers (eds), *Towards a Socioanalysis of Money, Finance and Capitalism* (Oxford: Routledge, 2013); Michael Hudson, *Finance Capitalism and its Discontents* (Dresden: Islet Verlag, 2012); Paul H Dembinski, *Finance: Servant or Deceiver* (transl by Kevin Cook, Basingstoke: Palgrave Macmillan 2009).

[119] Christopher Decker, 'Economics and Transnational Risk Regulation' in Bettina Lange, Fiona Haines and Dania Thomas (eds), *Regulatory Transformations: Rethinking Economy-Society Interactions* (Oxford: Hart 2015) at 55ff.

[120] See https://web.archive.org/web/20130514230107/http://www.occupytogether.org/. Also see 'BoE's Haldane says Occupy was Right', *Financial Times* (30 Oct 2012).

rule in the US[121] and ring-fencing legislation in the UK.[122] We think there may be such a role for regulation.[123] We also think a communicative framework for the functional understanding of shadow banking opens up more imaginative possibilities in regulatory policy, and makes us less confined to "like for like" applications of existing regulatory paradigms.

As the global financial crisis has made us more socially aware of financial sector risks and their impact, it is timely to build such a communicative framework, to embrace the 'cosmopolitan moment' as described by Beck.[124] It is noted that the Bank of England, a traditionally closed organisation has started Open Forums[125] to lead and invite open discussions by participants in all walks of life. Such are examples of the first steps towards a more systematic and deliberate institution of a rational communicative framework. Presumptions that regulatory policy-making in the wholesale financial sector is confined to participants in the sector and should not enrol other citizens' opinions are merely elitist and insular in nature. At a transnational level, the Financial Stability Board is poised to lead such a direction although it is at the moment behaving more like a closed think-tank of technocratic elites. Perhaps its global surveillance in shadow banking will place it in a position to reach out for wider discourse.

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[121] Dodd-Frank Wall Street Reform and Consumer Protection Act 2011 (Dodd-Frank Act), Pub.L. 111–203, § 619. See for example discussion in Julian TS Chow and Jay Surti, 'Making Banks Safer: Can Volcker and Vickers do it?' (November 2011) IMF Working Paper WP/11/236 http://www.imf.org/external/pubs/ft/wp/2011/wp11236.pdf.

[122] UK Financial Services (Banking Reform) Act 2013; Independent Commission on Banking, *Final Report* (London: ICB September 2011) http://www.hm-treasury.gov.uk/d/ICB-Final-Report.pdf; HM Treasury, *Banking Reform: Delivering Stability and Supporting a Sustainable Economy* (White Paper, Cm 8356, June 2012).

[123] See Bettina Lange, Fiona Haines and Dania Thomas (eds), *Regulatory Transformations: Rethinking Economy-Society Interactions* (Oxford: Hart 2015).

[124] Ulrich Beck, *World At Risk* (Ciaran Cronin tr, Cambridge: Polity Press 2009). Beck argues that global financial risks inevitably present 'risk conflicts' when the private sector engages in risky activities which put increasing numbers at risk of harm. Economists might call these externalities, although the risks may never materialize. Beck calls this 'organised irresponsibility', a shifting of risk through deliberate and rational organisation in private spheres. One of the consequences of 'organised irresponsibility' is the rise of Beck's 'cosmopolitan moment', where the collective consciousness of society rises up to challenge the situation of 'irresponsibility' and frames the discourse not in economic, rational and efficiency terms, but in terms of justice and rights.

[125] On 11 Nov 2015.