Securing Effective Regulation of the Shadow Banking System

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Shadow banking is here to stay. But it will be increasingly conducted in the full glare of the supervisory spotlight.[2]

Abstract

This article examines the recent regulatory reforms of the shadow banking system and why they were necessary. Using securitisation, securities financing and money market funds as illustrations, the article concludes that the diverse and extensive new regulations on shadow banking are likely to succeed because they build upon some core principles that have been trialled elsewhere in the contemporary and wider financial regulation. While those core principles extend the boundaries of conventional banking regulation, they aim to accomplish the same objective of financial stability. Viewed in that light, the article concludes, the new regulations on shadow banking constitute an evolutionary positive step that fortifies the core principles of modern financial regulation.

I. Introduction

This article deals with the recent regulations designed to secure the stability and resilience of the shadow banking system. It seeks to provide a deeper understanding of the subject by extracting the core principles from the extensive technical regulations and analysing the institutional and transactional context from which the regulations arose. It notes that the most prominent legal issue in shadow banking, which is a deficit in the regulation of the systemic risk, has been tackled by comprehensive new regulations that, in effect, extend and further

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[2] The Banker Supplement Report, *Regulation and Strategy – Shadow Banking – From the Shadows to the Spotlight* in The Banker (1 January 2013), also available at http://www.thebanker.com/Reports/Special-Reports/A-new-map-for-global-banks/Regulation-drives-alternative-lenders-out-of-the-shadows (last accessed 25 September 2017).

refine the principles developed for the regulation of banking and other sectors of the financial industry. The principles of regulation canvassed in this article, such as the structural separation of financial institutions and functions, transparency, due diligence, risk retention and mitigation, and resolution and crisis management, are illustrative of the modern trend in financial regulation and are not restricted to shadow banking. Viewed in that light, therefore, the regulation of shadow banking is evolutionary rather than transformative and reinforces the modern trends in wider financial regulation. As will be explained further below in this introduction, this analysis provides an important new perspective, which places analysis of technical provisions in the context of broader principles in a manner that has not been done before.

Banks are tightly regulated and supervised because they provide three critical services to society: they keep, lend, and move money. Technically speaking, they accept deposits, provide credit and operate the payment system. They encounter many risks during their operations and hence the need for strict regulation to protect individuals and society. The general objectives of bank regulation are to foster a stable financial system, promote the safety and soundness of individual banks to protect deposits, and promote the conduct of banking business with integrity, prudence and professional skill.[3] Banks are prudentially regulated and supervised to minimise bank failure because the cost to society at large would be extreme if a bank failed. Bank regulators also wish to reduce and minimise systemic risk as the difficulties experienced by one big institution could, through contagion, cause a run on other institutions. This could cause a constriction of liquidity for all sectors of the economy and reduce the overall level of economic activity.[4]

The shadow banking system replicates the core banking functions of deposit-taking and lending and, thus, exposes the economy to the same financial stability risks. Its constituent institutions and activities are also interconnected with banking raising the prospect of contagion. Yet, before the global financial crisis of 2007-08 (sometimes referred to as "GFC"), the dominant conventional wisdom was that the activities and entities in the shadow

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[3] Financial Services and Markets Act, section 3A (financial stability); section 19, and Schedule 2, and Financial Services and Markets Act (2000) (Regulated Activities Order 2001, Part II, Chapter II, section 5 (protecting deposits); and generally, Anu Arora, *Banking Law,* chapter 4 and 5 (London: Pearson 2014).

[4] See E.P. Ellinger et al, *Ellinger's Modern Banking Law*, 26 (5th edition, Oxford: Oxford University Press 2011); Ross Cranston et al, *Principles of Banking Law,* chapter 3 (3rd edition, Oxford: Oxford University Press 2018).

banking system – at the time, little understood and yet to be defined – did not pose a significant risk to financial stability and, in particular, any systemic risk. Nevertheless, before the reforms, which are the subject of this paper, the significantly lighter regulation for shadow banks was a source of systemic risk; this was because the sector was teetering towards failure which, in turn, put banks at risk through contagion as the two sectors are interconnected. That, in turn, threatened the stability of the whole financial system. On taking stock after the global financial crisis, the regulatory concern was that, whereas shadow banks performed bank-like functions, they were not subject to similar prudential regulation and did not have the public safety nets in place that ensured there would be no undue risk to the wider financial system.[5]

Shadow banking is the 'the system of credit intermediation that involves entities and activities outside the regular banking system'[6] or non-bank credit providers in short.[7] The shadow banking system has existed alongside traditional banking for approximately four decades and it is neither shadowy nor nefarious, as the name might suggest.[8] It simply consists of financial institutions and activities that provide bank-like activities – in particular, credit intermediation – and yet, they are not commercial banks. These include significant activities such as securities financing (repos and securities lending) and securitisation as well as key financial institutions such as money market funds, securities dealers/brokers, and finance companies. The well-known types of financial institutions of insurance companies, pension funds and public sector financial institutions are not shadow banks, but perform a

[5] Zoltan Poszar et al, *Shadow Banking*, Federal Reserve Bank of New York Staff Report, No 458, 2 (2010, Revised February 2012) https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr458.pdf (last accessed 25 September 2017) ; Laura E. Kodres, *What is Shadow Banking?* in *Finance & Development,* 42-43 (June 2013) https://www.imf.org/external/pubs/ft/fandd/2013/06/pdf/basics.pdf (last accessed 25 September 2017).

[6] See e.g. Financial Stability Board (hereinafter sometimes, FSB), *Global Shadow Banking Monitoring Report 2013*, 14 (November 2013), at www.financialstabilityboard.org; Laurent Grillet-Aubert et al, Assessing shadow banking – non-bank financial intermediation in Europe, European Systemic Risk Board No 10/ July 2016, page 3, at https://www.esrb.europa.eu/pub/pdf/occasional/20160727_occasional_paper_10.en.pdf;

Paul Tucker, *Shadow Banking, Financial Markets and Financial Stability,* BIS Review 2 (6/2010).

[7] See *Regulation and Strategy – Shadow Banking – From the Shadows to the Spotlight* in The Banker (1 January 2013).

[8] See e.g. Steven L. Shwarcz, *Regulating Shadow Banking* 31 Rev Banking & Fin L 619, 625-627 (2012); Gary Gorton and Andrew Metrick, *Regulating the Shadow Banking System* in Brookings Papers on Economic Activity, 261, 269-279 (Fall 2010); Adair Turner, *Securitisation, Shadow Banking and the Value of Financial Innovation* at www.fsa.gov.uk/static/pubs/speeches/0419-at.pdf at 12-18 (2012); Bank for International Settlements, *Recent Innovations in International Banking,* prepared by a Study Group established by the Central Banks of the Group of Ten Countries, known as the *Cross Report* (1986).

shadow banking function if they engage in commercial lending. Investment banks, as well as commercial banks, may also conduct some of their business in the shadow banking system, but most are not generally classed as shadow banks themselves.[9] In addition to the more established, pre-crisis, shadow banks, which were mainly dedicated arms of the institutional investors (pension funds, insurance companies) lending to companies directly and asset managers (mostly CLOs[10]), the newer shadow banks in the international financial markets are specialised funds (private debt funds, direct lending funds, listed funds, or partnerships between investors and banks) and they compete directly with, or complement, banks in direct lending.

Shadow banking institutions and activities were implicated as significant contributors to the global financial crisis of 2007-08 because the losses occurring in hedge funds, money market funds, securitisation vehicles and conduits, broker-dealers/investment banks and repos cascaded into the mainstream banking system, leading to financial instability and great economic loss.[11] The limited regulation then in place made shadow banks prone to significant financial stability risks that actually materialised through the run and liquidity squeeze. In the aftermath of the financial crisis, shadow banking was demonised for having large "negative stability effects" and adjudged as having had a "massively negative" net contribution to the economy.[12] The reassessment of the value and safety of the shadow banking system that followed catapulted the sector near the very top of the political and financial reform agenda, whereby leading regulators across the globe sought to regulate the shadow banking system to reduce the vulnerability of the global financial system. The earlier, but limited, literature, which was authored from the economics and finance perspectives mainly in the United States, pointed out the role played by specific subsectors of shadow banking (for instance, securitisation or securities financing) in the global financial crisis. The literature called for regulation of the sector, whose boundaries were not clear,[13] with only a few dissents on both

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[9] Bryan J. Noeth and Rajdeep Sengupta, *Is Shadow Banking Really Banking?* 19(4) The Regional Economist, (October 2011); see also Melanie L. Fein, *The Shadow Banking Charade* at https://www.sec.gov/comments/s7-04-09/s70409-95.pdf, at 130 (15 February 2013).

[10] CLOs are specialised funds for investing in securitised medium and large-sized corporate loans.

[11] See e.g. *Bank of the Future: EU Green Paper on Shadow Banking* 5, (COM (2012)102; Financial Stability Board, *Policy Framework for Addressing Shadow Banking Risks in Securities Lending and Repos,* page ii, http://www.fsb.org/2013/08/r_130829b/ (29 August 2013); Turner, above, at 7-8; Gary B. Gorton, *Misunderstanding Financial Crises – Why We Don't See Them Coming* 39, 183 (Oxford: Oxford University Press, 2012); Gorton and Metrick, *supra*, at 279-280; Kodres, s*upra*, at 42-43.

[12] Turner, above, at 27-28, 35-36.

[13] See references in note 11*, supra*.

its role in the crisis and need for regulation. The dissenters argued that the financial crisis was caused by inadequate regulation[14] and that further regulation was unnecessary.[15] The scant legal literature briefly defined shadow banking, analysed the need and feasibility of regulating the sector, and reached two conclusions; firstly, that shadow banking should be regulated because it is a potential source of systemic risk or exacerbates financial crises and, secondly, financial regulators at the time (mainly in the US) lacked the legal authority for regulating it.[16] Most of the preceding literature either focused on specific subsectors or analysed shadow banking holistically without drawing out the constituent elements and their linkages to other subsectors and the wider financial market, and there is virtually no literature on the regulation of the sector as a whole.

This article analyses the recent improved and comprehensive regulatory framework for the shadow banking system and seeks to enhance understanding this field. While others have recognised the general need for regulation, and provided some useful, but rather technical commentary on the regulation of specific sub-sectors of shadow banking,[17] this article analyses the financial stability risks in the constituent financial institutions and activities and extracts the overarching principles in the new regulations of the shadow banking system viewed holistically. So, the article makes the core argument that the package of new regulations on shadow banking, while adopting a different approach to the traditional legal regulation of mainstream banking, aim to achieve the same objective of financial stability and should be welcomed because they strike the right balance between stability and efficiency in the financial system. The article further makes several important observations that expound on that core point. First, the new regulations extend the boundaries of pre-existing shadow banking regulation on the one hand, and introduce further granularity in the regulation to take account of the economic reality that financial institutions sometimes do fail and that they do

[14] See e.g. Georges Ugeux, *International Financial Regulation: The Quest for Financial Stability,* 128 (Wiley, 2014).
[15] See e.g. Fein, s*upra.*
[16] See e.g. Note, *Danger Lurking in the Shadows: Why Regulators Lack the Authority to Effectively Fight Contagion in the Shadow Banking System* 127 Harvard Law Review 729 (2013); Chrystin Ondersma, *Shadow Banking and Financial Distress: The Treatment of Money Claims in Bankruptcy*, Columbia Business Law Rev 79 (2013); Schwarcz, above; Jonathan Macey, *It's all Shadow Banking, Actually* 31 Review of Banking & Financial Law 593 (2012); Steven L. Shwarcz, *Shadow Banking, Financial Markets, and the Real Estate Sector* 32 Review of Banking & Financial Law 179 (2012).
[17] E.g. Niamh Moloney, *EU Securities and Financial Markets Regulation,* 480-498 (3rd edition, Oxford: Oxford University Press 2014); Emilios Avgouleas, *Regulating Financial Innovation* in Niamh Moloney, Eilis Ferran and Jennifer Payne, *The Oxford Handbook of Financial Regulation*, 679-682 (Oxford: Oxford University Press 2016); Collins C Ajibo, *Shadow Banking, MMF Runs Risk Regulation, and a Case for Regulatory Harmonisation,* International Company and Commercial Law Review 395 (2015); Joanna Benjamin and Guy Morton, *The Future of Securities Financing* 7(1) Law and Financial Markets Review 4-8 (2013).

require strict regulation. Secondly, the new regulations start from the experience of failure in financial regulation and supervision – the global financial crisis – and seek to remedy past inadequacies in the regulatory and supervisory systems as well as financial institution practices. Thirdly, whereas pre-financial crisis regulation was principle-based and light-touch, the new regulations are detailed and intrusive. Fourthly, whereas conventional legal regulation focussed on the earlier life of an institution, for instance, setting it up and operating it smoothly, and provided an exit avenue if the institution could not be operated effectively, the new regulations focus on the later stages in the life cycle of an institution; namely, its safety and resilience and, if need be, its terminal end without causing undue harm to the wider economy.

The remainder of the article is divided in three main parts. Part II analyses what the legal problem is with shadow banking; namely, a regulatory deficit that manifests itself in diverse complex financial transactions whose unifying factor is that they offer the bank-like service of credit intermediation. This point is made by comparing the business of banking and its regulation, on the one hand; and the vulnerabilities caused to the financial system by shadow banking institutions and activities, on the other hand. Part III briefly comments on the development of international policy on the shadow banking system before extracting the core principles that have emerged or become more prominent for the regulation of the shadow banking system. The core principles illustrated include the structural separation of financial institutions and activities, heightened transparency and due diligence, risk retention and mitigation techniques, and resolution and crisis management. The last part, the evaluation and conclusion, is broadly supportive of the regulatory reforms which, it notes, complement and fortify the broader principles of financial regulation and, for that reason, are likely to be effective for the regulation of shadow banking.

II. The Regulatory Need to Contain Systemic Risk in the Shadow Banking System

The key legal issue in the shadow banking debate is that it is comparatively less regulated than banking; and yet, it similarly generates systemic risk and, potentially, financial instability. Until recently, it lacked the regulatory and supervisory safeguards that exist in the banking system and a regulatory gap still exists after the reforms. Shadow banking should be regulated because, as a source of systemic risk, it can trigger a crisis or exacerbate an existing one. Systemic risk, which is a risk of disruption in the financial system, with the potential of serious negative consequences for the financial system and the real economy,[18] includes risks attributable to structural features of financial markets, such as connections between financial institutions, the distribution of risk within the financial sector, and unsustainable levels of leverage, debt or credit growth.[19] The systemic risk in the shadow banking system arises due to five factors; first, some shadow banking institutions and activities perform the same economic functions that raise operational risks as in banking. To illustrate, some shadow banking institutions, such as money market mutual funds, receive money from the public in much the same way as banks take deposits, and then on-lend that money which makes them susceptible to runs. Others, such as finance companies, provide credit while relying on short-term funding that may dry up abruptly; while others, such as brokerage firms, deal with intermediaries reliant on short-term funding or funding secured on client assets that may be withdrawn at short notice. Furthermore, some shadow banking activities, such as securitisation, involve the long- term provision of credit, just like banks, or form chains that have fragile links. Other activities, such as repos, recycle collateral, similar to banks[20]; and in all the above examples, institutions may overcommit, misjudge risk or take undue risk, thus presenting the same issues as in banking regulation. Secondly, systemic risk arises because the sector is highly interconnected with the banking system and the wider financial system, which raises the spectre of contagion to the more prudentially regulated banking sector in the event of instability in the shadow banking system or an important institution or activity.[21] Thirdly, the sector is large and some of its individual components are large, making it systemically significant. Fourthly, the shadow banking system is situated in the geographically sensitive jurisdictions of the United States, European Union and United Kingdom, with potential for global effect. The United States has the largest shadow banking sector; this is because there is a wide variety of financial institutions and activities that regularly provide commercial and consumer credit, as compared with the United Kingdom, the euro area and most other countries where the banks are the main sources of credit.[22] Fifthly, the potential for systemic risk is amplified because of the global reach and complex

[18] Bank of England Act 1998, section 9C (5); Capital Requirements Regulation (EU) 575/2013 Article 3(10).
[19] Bank of England Act 1998, section 9C (3).
[20] Jacqueline Jones, *The Regulation of Shadow Banking: are you Affected?* 29(1) Butterworths Journal of International Banking and Financial Law 59 (2014); Financial Stability Board, *Global Shadow Banking Monitoring Report 2015,* para 2.1 http://www.fsb.org/wp-content/uploads/global-shadow-banking-monitoring-report-2015.pdf.
[21] Financial Stability Board, *Global Shadow Banking Monitoring Report 2011.*
[22] Financial Stability Board, *Global Shadow Banking Monitoring Report 2015*, *supra*, at 11.

nature of its activities and institutions combined with the mobile nature of the securities and funds markets.[23]

In the immediate post-crisis period, there was a general need for regulation to restore confidence in the financial system and curb the excesses in the shadow banking system that arose from a combination of accelerating innovation on the part of the industry participants on the one hand and a light-touch approach to regulation on the other hand. In the longer term, the regulations are necessary to maintain financial stability, ensure a level playing field with the banking sector, and reduce the likelihood of loss to the investors in shadow banks or the taxpayers who would be required to bail them out. It is still important to maintain tight regulation years after the financial crisis ended because the shadow banking sector has grown in size and significance, and an anti-regulation stance has gained traction on both sides of the Atlantic, which signals the possibility of unwinding some of the reforms that brought stability to the wider financial sector.[24]

A separate legal issue, which complicates the task of any coherent regulation, is that the parameters of the shadow banking system are not clearly demarcated, which makes a legal definition and attendant regulation complex. Shadow banking is neither a distinct financial institution that can be regulated along institutional lines nor a distinct activity that can be regulated as such. Rather, its diverse constituent elements use different methods (as will be explained below) and, yet, they should be regulated by the same principles because they perform a shadow banking function.

A study on the regulation of shadow banking necessarily focuses on the large financial institutions and wholesale transactions that create systemic risk in the larger economies. It does include the smaller credit providers and alternative digital channels that do not pose systemic risk even though they technically fall under the definition of shadow banking; such as such as peer-to-peer lending platforms, market place lending, online private placement, and invoice exchange markets. It also excludes shadow banking in much of the developing

[23] *Bank of the Future: EU Green Paper on Shadow Banking*, *supra*.
[24] Most notably, the United States bill for the Financial CHOICE Act, 2017 https://www.govtrack.us/congress/bills/115/hr10/text/eh (last accessed 03 May 2018) intends to reverse key elements of the Dodd-Frank Act that brought in the measures discussed in this article (bail-outs and institutional separation).

world, where, except in China, it is not a threat to financial stability as it is generally small and simple; in any case, it is closely monitored and supervised.[25]

Shadow banking is a clear illustration of money moving out of the banking system to other financial institutions and activities and, logically, regulation should follow finance. Since the business of banking has always been tightly regulated, it is an appropriate benchmark for the conceptualisation, policy formulation and regulatory design for a large segment of the shadow banking system.[26] Furthermore, an illumination of the core banking functions and their regulation[27] is critical to understanding what the regulation of shadow banking seeks to achieve and in the end, it will be shown that the two sets of regulation for the two sectors complement each other.

i. Banking Business and Regulation – The Comparator for Shadow Banking

The core economic role of commercial banks is credit intermediation and involves the two characteristics of accepting deposits on loan from the public by way of business and lending to households, firms and the wider financial system.[28] The deposits are repayable on demand, or at some other agreed time; in the meantime, the banks use them for their own account.[29] In their core role, banks perform the four economic functions of, first, maturity transformation – converting the short-term deposits to long-term loans, or what is sometimes known as borrowing short and lending long;[30] second, liquidity transformation – using cash-like liabilities to buy harder assets such as loans; third, leverage – using borrowed funds (the

[25] See Liu Xiangmin, *Shadow Banking in China* 30 Banking & Finance Law Review 127-135 (2015); Cristiano Cozer, *Is there a Shadow Banking System in Brazil?* 30 Banking & Finance Law Review 291-302 (2015); Xusheng Yang, *Taming the Shadow Banking Wilderness* 30 (25) International Financial Law Review 28-29 (2013); Wei Shen, *Shadow Banking System in China – Origin, Uniqueness and Governmental Responses,* Journal of International Banking Law and Regulation 20 (2013); Robin H. Huang, *The Regulation of Shadow Banking in China: International and Comparative Perspectives* 30 Banking & Finance Law Review 481-503 (2015).
[26] Other segments draw from capital markets.
[27] See e.g. Stephen Valdez and Philip Molyneux, *An Introduction to Global Financial Markets,* 69-102 (8th edition London: Palgrave MacMillan, 2015).
[28] See *Commissioners of State Savings Bank of Victoria v. Permewan Wright & Co* (1915) 19 C.L.R. 457, 470-1; *United Dominions Trust v. Kirkwood* [1966] 2 Q.B. 431 (Denning L.J.); Capital Requirements Regulation (EU) 575/2013 Art 4(1) point 1.
[29] *Id.*
[30] Financial Services and Markets Act (2000) (Regulated Activities Order 2001, Part II, Chapter II, section 5; Andrew Campbell, *Insolvent Banks and the Financial Sector Safety Net - Lessons from the Northern Rock Crisis* 20 Singapore Academy of Law Journal 316-342 (2008).

deposits) to increase profit by lending more money than the bank's capital or asset base (also known as credit creation); and fourth, credit risk transfer – that is, transferring the risk of default from the bank to its debtors.[31] These activities create a systemic risk to the financial system in cases where there is a mismatch between the bank's assets and liabilities, hence the need for banking regulation. By parity of reasoning, shadow banking should be similarly regulated since it replicates the systemic risk inherent in the core banking business.

The prudential regulation of banks focuses on protecting bank deposits so that customers do not lose their savings. The traditional approach to the prudential regulation of banks consisted of few requirements; namely, that a bank should be a body corporate or a partnership, should have its offices and close links with the United Kingdom for it to be effectively supervised, adequate resources to carry on its business, and employ competent and prudent management that should carry on banking business with integrity and in accordance with proper standards.[32] As a refinement to the traditional regulation of banking, starting notably around 1988, when the first global rules on capital adequacy took effect[33] to the present time, modern banking regulation requires each bank to maintain sufficient capital as a buffer to external shocks by limiting the bank's assets relative to its capital; to maintain sufficient liquidity so as to be able to accommodate new and existing customers with ease and convenience; to avoid excessive risk-taking by limiting the types of business it engages in (banks only deal in financial assets); and limit credit risk and concentration by restricting the size of loans to individual entities, related entities and the aggregate amount of loans.[34] The requirements to employ people of high integrity and follow the principles of good business conduct are applied to a more exacting standard than applied previously.[35] Bank regulators and supervisors also have a general power to impose more regulations to enhance the safety of the financial system.[36] Prudential regulation is augmented by two important public safeguards that engender public confidence in the banking and wider financial system and, thus, minimise bank runs.[37] The first of these

[31] See John Armour *et al*, *Principles of Financial Regulation,* 277-278 (Oxford: Oxford University Press, 2016); Kodres, *supra*, at 42.
[32] Arora, *supra*, at 184-186.
[33] See Basel Committee on Banking Supervision, *International Convergence of Capital Measurement and Capital Standards* (1988) at http://www.bis.org/publ/bcbs04a.pdf (also known as The Basel Capital Accord 1988).
[34] See e.g. Armour *et al*, above, 279; Simon Gleeson, *International Regulation of Banking* (Oxford: Oxford University Press 2012); Financial Conduct Authority, Handbook, COND/2/4 https://www.handbook.fca.org.uk/handbook/COND/2/4.html.
[35] Financial Conduct Authority, Handbook, COND 2.5.1A https://www.handbook.fca.org.uk/handbook/COND/2/5.html.
[36] Arora, *supra*.
[37] Arora, *supra*, at 19-20, 196

safeguards is the central bank liquidity provider of last resort, a safety net that can bail out a bank that has a temporary liquidity problem.[38] The second safeguard is the industry-financed public guarantee scheme (of recent supplemented by bank special resolution schemes)[39] intended to ensure expeditious pay-outs to depositors, at least to a significant extent for most retail depositors, in case of bank failure.[40] These tried and tested features of banking regulation require selective adaptation to achieve stability in shadow banking.

ii. Shadow Banking Activity: Securitisation

The well-established and highly beneficial technique of securitisation, where loans are packaged and then tranched into securities that are sold to investors, is a good illustration of the financial stability risks that arise from credit and maturity transformation, leverage, institutional linkages, and complexity and opaqueness of some transactions.[41] The first step in a securitisation process is the origination of loans, where the loans are sourced by commercial banks (or finance companies, building societies and other mortgage originators). The bank then arranges to sell the loan to third parties, which frees up capital for further bank lending and creates the possibility of greater leverage in the economy. In the second step, the pooling of loans, the sponsor, typically a subsidiary of a large commercial bank or an investment bank, purchases loans from one or more originators and packages them. Since this institution can, at times, be the same as the originator, this potentially creates a lack of transparency that has subsequently been a target for reforms. As a third step, the sponsor sells the pooled loans to the special purpose vehicle (SPV), typically a company or trust, which it would usually have created and would finally hold the loans. This again illustrates the interconnectedness among the originator and various securitisation entities, potentially creating a lack of transparency and liquidity and maturity transformation vulnerabilities in the

[38] For the lender of last resort function, see Rosa Lastra, *International Financial and Monetary Law,* chapter 4 (Oxford: Oxford University Press, 2015).
[39] Introduced by U.K. Banking Act 2009, 2009 c.1.
[40] In the United Kingdom, for example, the Financial Services Compensation Scheme stands ready to compensate depositors up to £75,000 per person per firm in case a bank fails.

[41] See Noeth and Sengupta, *supra*; see Financial Conduct Authority, Handbook, MIPRU 4.2BA https://www.handbook.fca.org.uk/handbook/MIPRU/4; Capital Requirements Regulation (EU) 575/2013 Art 4(1) points 61-67; Jan Job de Vries Robbe and Paul U Ali, *Securitisation Law and Practice: in the Face of the Credit Crunch* (Wolters Kluwer Law & Business, 2008); and Regulation (EU) 2017/2402 of the European Parliament and of the Council laying down a general framework for securitisation and creating a specific framework for simple, transparent and standardised securitisation (hereinafter, Securitisation Regulation) Preamble, points 1 and 4 and article 2.

chain. Fourthly, the SPV issues securities to investors against loans held on its portfolio. Usually, the SPV sells securities of the company (or the certificates of the trust) to the underwriter, which is generally an investment bank that, in turn, offers them up for sale either through a private placement or public offering to the ultimate investors.[42] Notably, the underwriter can even retain some of these securities in its own portfolio. The securities can also be repackaged in many ways or used as collateral for further loans at this point. Pre-GFC, this stage of securitisation also included a wide variety of over-the-counter (OTC) derivatives, some of which were speculative and magnified risk, but post-GFC that has been significantly curtailed.[43] While OTC derivatives and repackaging facilitate credit transactions and free up capital for further lending, they also increase leverage in the economy and potentially lead to financial instability. The final stage is the purchase of the securities by the investors, who are then entitled to receive payments of principal and interest on the securities from the SPV in their order of priority, which is determined by the class or tranche of security certificates purchased. The ultimate investors, for example money market funds, hedge funds or institutional investors, can hold them on their balance sheet, sell them or even use them as collateral in a repo arrangement.[44] Banks are closely linked with the investors because some asset management arms of banks invest in the securitisation market, while banks interface with other financial institutions through repo arrangements.

The securitisation process transforms longer-term loans with significant credit risk into instruments of shorter maturity and considerably lower risk. In so doing, the maturity transformation and credit intermediation process mimics the function of a bank which borrows short and lends long. That creates the financial stability risk of maturity mismatch. Securitisation also recycles funds for lending and makes more credit available in the same way as the banks function during the process of credit creation. The financial stability risk thereby created is the potential for excessive leverage. Furthermore, nearly all the entities involved in a securitisation typically use a range of short-term instruments, like financial commercial paper and repo transactions, to fulfil their short-term funding requirements. Even the investors that buy the final securities, particularly money market funds, follow the business model of taking short-term investments to make long-term investments, which

[42] Accord. Securitisation Regulation, *supra*, article 2.
[43] See, Securitisation Regulation article 24(12), id., and on derivatives generally, Vires Robbe, *supra*; Agasha Mugasha, *The Secondary Market for Loan Syndications: Loan Trading, Credit Derivatives and Collateralised Debt obligations* 19 Banking and Finance Law Review 199 – 235 (2004).
[44] Repo is explained further below.

mimics the banking model. The financial stability risks here include the interconnectedness of the financial institutions and maturity mismatch. In conclusion, securitisation illustrates the numerous shadow banking institutions and activities as well as the linkages between banks and shadow banks, and that deterioration in either sector can spill over to the other.

iii. Shadow Banking Institution - Money Market Funds

Money market funds (MMFs) exemplify collective investment vehicles or alternative investment funds involved in credit intermediation.[45] Their financial stability risks arise from their susceptibility to runs because of the credit and maturity transformation they perform, sometimes with leverage.[46] Investors view MMFs as alternatives to bank deposits because they are generally perceived to be equally safe (technically, this is not entirely correct) and offer yields similar to money market instruments and, therefore, higher than bank deposits. Another financial stability risk arises because MMFs are highly interconnected with the financial system, both on the deposit side – where they receive funds by way of investment from institutional investors, companies, and households – and on the supply side, where the large pool of funds can be deployed across the globe for a variety of purposes at short notice. They invest in highly liquid instruments such as financial commercial paper, treasury bills, short-term fixed income securities and repo financing. They, therefore, have the beneficial effect of providing credit and liquidity across the global financial system; however, the sudden withdrawal of funds can cause a constriction of funding and a run on the financial system.[47] Yet, unlike bank deposits, MMFs until recently were neither subject to bank-like prudential regulation nor legally supported by either the central bank liquidity of last resort to stop runs or a public guarantee of investments that would compensate for investor losses**.**[48] In recent years, however, before and after the financial crisis in Europe and the US, the industry was given access to the central bank facilities to stop runs and the disruption of the financial industry.[49]

[45] For their regulation, See Financial Conduct Authority, Handbook, COLL 5, implementing UCITS Directive 2009/65/EC and /OIEC 2011/61/EU and AIFMD and Securities Financing Transactions Regulation (EU) 2015/2365.
[46] Moloney, *supra,* at 260-263; *Global Shadow Banking Monitoring Report 2015*, *supra*, 20.
[47] Indeed, MMFs were considered to have spread the 'credit crunch' from the US to Europe in the recent financial crisis / credit crunch.
[48] While the United Kingdom protects investors up to £50,000 under the Financial Services Compensation Fund, that is a pittance for institutional investors.
[49] Tucker, *supra*, 2; International Organisation of Securities Commissions (IOSCO), *Policy Recommendations for Money Market Funds*, 6 http://www.iosco.org/library/pubdocs/pdf/IOSCOPD392.pdf.

The financial stability risks of MMFs, noted above, are inherent in the business model they adopt to attract investors but, at the same time, make them susceptible to runs.[50] First, they promise instant liquidity; that is, the investment will be redeemed for cash on demand even before the underlying portfolio is sold. Secondly, they promise an enhanced return in line with market instruments; that is, to pay interest on the investment that is higher than what is obtainable on bank deposits – which can be challenging in a low-interest environment. Thirdly, they promise capital certainty; that is, the individual investor will get at least as much as they invested and that the principal value of the fund will be preserved and will not fall below par. This is the so-called Constant Net Asset Value (CNAV), which is similar to a bank deposit.[51] Technically, if the CNAV cannot be maintained above the threshold of 99.5 in the dollar, the fund must close for 'breaking the buck', thus incentivising a run.[52] Because of these features, runs are an ever-present possibility and, occasionally, a practical reality because the value of the MMF, like other investments, fluctuates and may decrease. There have also been some structural issues that have been targeted by recent reforms. Pre-reform, there was a high level of interconnectedness with the banking industry for two reasons. First, the MMF industry provided funding across the financial sector, including short-term funding to banks,[53] meaning that the maturity mismatch in the MMF industry could affect the banking sector and the financial system as a whole. [54] Secondly, as many as nine out of ten MMFs were sponsored by banks, meaning that banks faced the reputational risk of having to inject capital into MMFs in crisis, as happened during the financial crisis. And yet, pre-reform, banks were not required to hold capital against the implicit support for MMFs or consolidate them on their balance sheets.

iv. Shadow Banking Activity - Securities Financing Transactions (Repos and Securities Lending)

Securities financing transactions constitute short-term borrowing (or lending) using securities as collateral.[55] They mainly consist of repurchase transactions for securities, commodities and

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[50] IOSCO, *Policy Recommendations, supra*, Section 4.
[51] Tucker, supra, 2.
[52] IOSCO, *Policy Recommendations, supra,* Section 2. A run is also possible if the deposit side is unwilling to invest and investors redeem their investments at the same time.

[53] IOSCO, *Policy Recommendations, supra*, 18.

[54] Tucker, *supra*, at 2.
[55] For example, government bonds, mortgage securities, corporate debt and equities: see generally, Financial Conduct Authority Handbook, Stock Lending, COLL 5.4 https://www.handbook.fca.org.uk/handbook/COLL/5/4.html.

guaranteed rights; lending and borrowing of securities and commodities; buy-sell back or sell-back transactions; and any transaction having an equivalent effect.[56] They are central to the wholesale funding system and the global financial system because financial institutions with excess capital get to the lend capital securely to those that need it under unique advantages deriving from law and practice that give similar protection to that of deposit insurance. In particular, the transactions are short-term, over-collateralised, backed by reasonably liquid securities, subject to daily market valuation and re-margining requirements,[57] and exempt from the automatic stay in insolvency proceedings.[58] They thus add liquidity to the financial market, fund market participants, facilitate portfolio management and enable the monetary financing operations of central banks.[59]

A repurchase transaction (repo) enables a financial institution (e.g. a bank) to borrow cash from cash-rich institutions such as central banks, pension funds, hedge funds and MMFs, using securities or other financial assets as collateral.[60] Repo financing is driven by the short-term financing needs of banks and broker-dealers on the one hand, and the demand by some risk-averse investors for collateralised money-like instruments on the other, such as very safe and highly liquid assets in the wholesale markets. Such institutions own cash that exceeds the amount protected by deposit insurance in a bank account, and yet they do not have access to the central bank lender of last resort that would guarantee them ready access to short-term funds. On the other hand, collateralised lending enables them to deploy funds for profit while maintaining ready access to their cash, similar to the central bank lender of last resort.

The systemic risk in securities financing transactions is the potential for runs because the financial institutions reliant on short-term mail fail due to liquidity shortages.[61] There is also a

[56] Financial Conduct Authority, Handbook, Stock Lending, COLL 5.4.2-5.4.3, *id.*; Article 3 of Regulation on Transparency of Securities Financing Transactions and of Reuse, Regulation(EU) 2015/2365; Benjamin and Morton, *supra*, at 4-8; Antony Bryceson, *Shadow Banking Risks in Securities Lending and Repos,* Journal of International Banking and Financial Law 40 (2014).
[57] Financial Conduct Authority Handbook, COLL 5.4.6 - 5.4.8, *supra.*
[58] See Capital Requirements Regulation 575/2013 art 4(1) point 83; Financial Stability Board, *Transforming Shadow Banking into Resilient Market-based Finance: Standards and Processes for Global Securities Financing Data Collection and Aggregation* (18 November 2015) para 2.3 http://www.fsb.org/wp-content/uploads/FSB-Standards-for-Global-Securities-Financing-Data-Collection.pdf; Benjamin and Morton, supra, at 5; Tarullo, s*upra*, 9; Financial Stability Board, *Securities Lending and Repos: Market Overview and Financial Stability Issues*, 5-6 (27 April 2012).
[59] Explanatory Memorandum to Securities Financing Transactions Regulation (EU) 2015/2365.
[60] *Securities Lending and Repos: Market Overview and Financial Stability Issues*, *supra*, at 5-6.
[61] Financial Stability Board, *Strengthening Oversight and Regulation of Shadow Banking: Policy Framework for Addressing Shadow Banking Risks*, 4-6 (29 August 2013) at http://www.fsb.org/wp-content/uploads/r_130829b.pdf.; Bryceson, *supra*, at 41; Explanatory note to Securities Financing Transactions Regulation (EU) 2015/2365.

high level of interconnectedness among the participating institutions as well as several other specific financial stability issues. First, the transactions are usually complex and can be opaque for some market participants and regulators, especially because many are conducted off-balance sheet without adequate disclosure. Secondly, collateral can by re-hypothecated or re-used to support multiple transactions and, thus, creating excessive leverage. Thirdly, the level of leverage may contribute to procyclicality, which is a strong positive correlation with existing market sentiment leading to excessive risk-taking in the financial system in a potentially destabilising way.[62] Where a counterparty defaults, secured parties will sell collateral in a fire sale that may trigger a domino effect. Fourthly, the value of collateral and the 'haircuts' may also contribute to procyclicality. These issues have been the subject of reform, as discussed in the next section of this article.

v. *Observations on the Interface between Banking and Shadow Banking Risks*

As seen above, different components of the shadow banking system pose bank-like risks to the financial system even when they neither have public guarantees nor are they regulated like banks. Securitisation, securities financing and money market funds are all susceptible to runs and interconnected with banks, raising the prospect of contagion. Some of their methods are complex and opaque for regulators and investors alike, thus making for a strong argument in favour of supervisory oversight and regulation in proportion to the bank-like risks paused. The post-GFC reforms have progressively targeted the weak points in banking and shadow banking as seen next.

III. Policy and Regulatory Interventions

This section presents the core principles of financial regulation that have emerged or become more pronounced from the new and enhanced regulatory framework for the shadow banking system. Viewed in isolation, the new and extensive regulations are transformational because they apply new rules to shadow banking; in wider context, however, the new regulations are evolutionary because they build on the recent, post-crisis, reforms of banking regulation, as

[62] *Strengthening Oversight and Regulation of Shadow Banking: Policy Framework for Addressing Shadow Banking Risks, supra,* at 4-6.

seen in Part II (a), above, and the regulation of the insurance industry, as noted in the following analysis. Notably, the new regulations try to lessen the severity of a financial crisis in future and public bail-outs of financial institutions; they nonetheless still aim to achieve the same objective of financial stability.

i. Global Coordination of Policy

The policy for the regulation and supervision of shadow banking focuses on identifying the sources of systemic risk and the risk of financial instability generally. The regulators are keen to minimise runs on the financial market arising from credit institutions, activities that substantially rely on short-term funding, and entities with deposit-like characteristics.[63] The Financial Stability Board (FSB) took the lead in global policy formulation for certain areas and delegated some of the policy formulation to specialised agencies, while specific regulations and supervision were left to expert national regulators experienced in the sector. Notably, policy formulation in relation to money market funds and securities financing transactions was delegated to International Organisation of Securities Commissions, while capital requirements were delegated to the Bank for International Settlements. Whilst the 'soft' law made by the FSB and other international standard-setting bodies is not legally enforceable, it is highly persuasive and often gets enacted in local legislation and enforced in the critical major jurisdictions for the financial sector. From a methodological perspective, the architects of the FSB measures do closely interact with those of the national jurisdictions through vertical and horizontal networks, thus giving the measures a high likelihood of being implemented across the globe.[64] The complementarity between the FSB and national authorities is the new global regulatory order, with the resultant policy created at the supra-national level by the G20 World leaders acting through the FSB.[65]

The FSB and other national policy positions have been translated into specific laws that can be categorised under broad themes or core principles, as discussed below. Some of the regulations have been directly applied to shadow banking institutions and activities, while

[63] See *Global Shadow Banking Monitoring Report 2015*, *supra*; Tarullo, *supra*, at 12-15.
[64] See, generally, Joanna Benjamin and David Rouch, *The International Markets as a Source of Global Law: The Privatisation of Rule-making?* 2 Law and Financial Markets Review 78 (2008).
[65] See Christopher Brummer and Matt Smallcomb, *Institutional Design: The International Architecture* in Moloney, Ferran and Payne, *supra*, at 145-147.

others were applied indirectly through the regulation of established financial institutions such as banks and insurance companies.

ii. Core Principles in the Regulation of the Shadow Banking System

The more stringent regulation of the shadow banking system is a subset of the significant financial reforms of the banking and wider financial industry regulations and is geared towards the resilience of the sector and greater financial stability. The core principles or principal themes that emerged, which are analysed in this section are, therefore, distinctly similar to those found in the modern regulations applying to the wider financial sector. Concerning the financial stability of money market funds (MMFs), a global consensus has emerged that the regulations should seek to reduce systemic risk by promoting the resilience of MMFs and limiting contagion, particularly with banks. In respect of securitisation, the reforms aim to reduce complexity and opaqueness in securitisation structures and linkages with banks. Thus, the regulators across the globe have demanded enhanced transparency, stronger investor protection and significant risk retention requirements to deal with the risks generated by securitisation. Concerning transactions in the securities financing market, the main aim for the global regulators is to reduce excessive leverage and dampen procyclicality.[66] The reforms have been incremental and ever more comprehensive.

The present analysis includes financial derivatives, which, while not being a credit facility, are used by virtually all types of financial institutions for hedging risk[67] and, ultimately, do facilitate credit intermediation. The financial stability risks caused by financial derivatives in the lead-up to the GFC arose from their inherent attributes of increasing leverage in the financial system and creating linkages among financial institutions, both of which reached crisis levels because they went largely unnoticed in the predominantly OTC derivative market structure.[68] Financial regulators were also concerned that the risk generated by financial derivatives was not properly assessed by some counterparties. The global regulators in the past minimally regulated derivatives on the premise that the sophisticated players involved in that market were better left to determine their legal relations; however, after the global

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[66] *Global Shadow Banking Monitoring Report 2013* – Executive Summary page 5 http://www.fsb.org/wp-content/uploads/r_131114.pdf.
[67] See, e.g., Alastair Hudson, *The Law on Financial Derivatives* (5th edition London: Sweet & Maxwell, 2012).
[68] Commission of the European Communities, *Ensuring Efficient, Safe and Sound Derivatives Markets: Future Policy Actions* para 1, COM (2009) 563/4 http://ec.europa.eu/internal_market/financial-markets/docs/derivatives/20091020_563_en.pdf.

financial crisis, in which financial derivatives were implicated in some of the high-profile financial collapses or near collapses of financial institutions,[69] the same regulators favoured a paradigm shift towards closer regulation and supervision aimed at strengthening financial stability and making severe financial crises less likely in the future.

1. Institutional reform

While the structural separation of banking from other financial institutions and activities has always been a cornerstone of financial regulation,[70] the new regulatory regime for the shadow banking system prominently extends that principle to stem the interconnectedness between shadow banking institutions and activities from mainstream banking. The linkages between the two sectors, which may be explicit or implicit, have been addressed in many ways. First, there are explicit legal bars to linkages among financial institutions, for instance the explicit requirement that an MMF shall not be externally supported by a bank or other external party.[71] Such support increases the prospect of contagion with the wider financial sector, and its discretionary nature increases uncertainty, which in turn, makes MMFs more vulnerable because market participants do not know if such support will be available when needed. The new regulations, thus, are intended to reverse the pre-GFC institutional structure where as many as 90% of MMFs were owned by or sponsored by banks and is a clear effort at limiting contagion by separating MMFs from third parties.

Secondly, in respect of securitisation, there is now a structural separation of retail and investment banking,[72] which manifests itself in the significant restrictions on bank credit or liquidity support for securitisation vehicles and conduits.[73] Thus, it is now required that banks and other mortgage originators shall only transfer the securitised exposures to special purpose vehicles and that the banks shall not maintain direct or indirect control over the securitised exposures. Furthermore, the credit enhancement documentation must not require a bank to support the securitised exposures or investors. There must also be express prohibitions on any

[69] E.g. Bear Stearns, AIG and Lehman Brothers.
[70] Notably, the separation of the businesses of banking, insurance and securities dealers.
[71] Article 35, Regulation (EU) 2017/1131 of the European Parliament and of the Council on Money Market Funds.
[72] Financial Services (Banking Reform) Act of 2013 Part 1 and Financial Services and Markets Act 2000 Part 9B Sections 142A-142G.
[73] Capital Requirements Directive IV (CRD IV) which consists of Capital Requirements Directive (2013/36/EU and Capital Requirements Regulation (575/2013) and is applied by the Financial Conduct Authority in the UK.

implied support by the bank beyond its contractual obligations and an express requirement that any such support can only be made at fair market value.[74]

Thirdly, in respect of securities financing transactions and derivatives, the general trend towards the mandatory central clearing of transactions reduces interconnectedness among financial institutions and activities through the practicalities of the enhanced settlement processes.[75] That is because each counterparty deals separately and settles its obligations with the central clearing party thereby avoiding exposure to multiple counterparties.[76] Fourthly, the requirement for transparency in securities financing transactions and over-the-counter derivatives, appearing most prominently through the obligation to report to a registry and periodic reporting, implicitly reduces linkages among institutions. All these structural reforms are complemented by principles of good governance and conduct of business rules aimed at enhancing financial stability by promoting the safety and soundness of financial institutions and instruments.[77]

While these new rules on the separation of banking from shadow banking are rigorous and far-reaching, in broader context they are merely steps along a continuum of modern post-crisis financial regulation.

2. Accounting reform

The key regulatory accounting reform restricts choice in the financial industry by generally preferring the market valuation of assets to reflect the actual risk in the economy. That reverses the hitherto prevailing liberal attitude that accommodated different valuation methods for financial assets and instruments, sometimes leading to different results.[78] The change of principle and its consequences are illustrated in different ways. Before the financial crisis, MMFs promised that the investors would not incur loss even if the value of their investments fell and, officially, there was no public guarantee system, as existed for banks.

[74] Financial Conducts Authority Handbook, MIPRU 4.2BA.17 - 4.2BA.23
[75] See, e.g., the reform of OTC derivatives, *infra*, text around notes 123-128.
[76] Peter O. Mulbert, *Managing Risk in the Financial System* in Moloney, Ferran and Payne, *supra*, at 391.
[77] See e.g. The EU Regulation on OTC Derivatives, Central Counterparties and Trade Repositories EU 648/2012 (more commonly referred to as the European Markets and Infrastructure Regulation (EMIR)) articles 7(1), 14, 16, 22, 26, 29, 36, 38-41, 46 and 50.
[78] For example, amortisation, impairment and accounting book.

That was the effect of the constant net asset value (NAV) philosophy. In reality, MMFs could not keep this commitment and were bailed out both in Europe and the US, thus landing the loss on the taxpayers. The reforms require, therefore, the market valuation of MMF assets (mark-to-market), with only minor exceptions, thus prescribing the prevalence of floating/variable NAV, while significantly restricting constant NAV MMFs. That measure thereby apportions the risk to principal on the investors. Thus, a standard MMF shall not take the form of a constant NAV MMF.[79] Furthermore, the assets of the MMF and the NAV in a constant NAV MMF must be valued at least daily using the market valuation method and the information published on the website.[80] The same accounting approach can be seen in the valuation of derivatives in securitisation structures where there is a requirement to use market interest rates for any referenced payments.[81] It can further be seen in respect of securitisation, where there is a requirement that risk management shall be based on economic substance rather than form. Furthermore, the bank must calculate the risk-weighted exposure of its assets (the components of the calculation are highly prescribed[82]) and maintain regulatory capital commensurate with the risk it retains.[83] Similarly, the new regulatory regime for insurance companies has also adopted a harmonised way for the valuation of assets and liabilities and directs that assets should be valued at market rates.[84] As the banking and insurance examples illustrate, accounting reform is not confined to shadow banking but is part of wider financial reforms.

3. Transparency and due diligence

A key element of the regulatory reform that significantly strengthened the previous law on shadow banking consists of two complementary requirements of transparency and due diligence. Transparency requires that information should flow to those who need it; namely, the regulators and investors; and due diligence requires investors and industry participants to do the best they reasonably can to protect their positions. The two concepts address the concerns that in the lead up to the global financial crisis of 2008, crucial information about financial transactions had not reached the regulators and investors, and even when it did some

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[79] Regulation (EU) 2017 on Money Market Funds, *supra*, Article 25(5)
[80] *Id.*, generally Articles 29 - 32.
[81] Securitisation Regulation 2015/0226, Article 9(3).
[82] Financial Conduct Authority Handbook, MIPRU 4.2BA.31.
[83] Financial Conduct Authority Handbook MIPRU 4.2BA.2 - 4.2BA.5
[84] Directive 2009/138/EC Taking-up and Pursuit of the Business Insurance and Reinsurance (Solvency II), (hereafter, Solvency II Directive), Article 75(1).

of it was too complex for both groups, in any event, the regulators adopted the light-touch regulation and did not use it. On their part, the investors overly relied on credit rating agencies.

In securitisations, the enhanced regime for transparency requires that the investors must be given access to all materially relevant information at the date of the securitisation and as circumstances warrant thereafter. The information must include the credit quality, performance, cash flows and supporting collateral and such as other information as is necessary to conduct comprehensive and well informed stress tests on cash flows and the supporting collateral.[85] Viewed in the more detailed European Union regulatory framework, each one of the originator, sponsor and SPV is required to make specified information available to holders of a securitisation position, potential investors and competent authorities and the information should be available in a timely and clear manner on a website that meets certain requirements.[86] For instance, the investor, before investment, shall be given data on static and dynamic historical default and loss performance for substantially similar exposures to those being securitised for a period of at least five years. Secondly, prior to issuance, there must be external verification of a sample of underlying exposures, including verification that data is accurate with a confidence level of 95%. Thirdly, the originator or sponsor must provide the investors with a cash flow model before pricing of the securitisation and on an ongoing basis; and the originator, sponsor and SSPE must comply with the transparency requirements.[87] An institutional investor, on its part, is required to carry out due diligence assessments commensurate with the risks involved in a securitisation before it becomes exposed to a securitisation, and regularly and continuously after taking an exposure.[88]

In securities financing transactions (SFTs), the enhanced transparency requirement is intended to enable to identify and monitor the build-up of systemic risk in the financial system[89] and in particular to detect and limit excessive leverage and the risks arising from the linkages among institutions.[90] Thus, a counterparty to an SFT transaction is required to report the details of such transaction to a trade repository which is registered or recognised no later than the working

[85] Financial Conduct Authority Handbook, MIPRU 4.2BA.54.
[86] Securitisation Regulation, *supra*, Article 7.
[87] *Id.*
[88] Securitisation Regulation, supra, Article 5; Regulation on Transparency of Securities Financing Transactions and on Reuse, (EU) 2015/2365), Article 3.
[89] Regulation on Transparency of Securities Financing Transactions, *id.*, Article 12(2).
[90] IOSCO*, Policy Recommendations for Money Market Funds, supra,* Recommendations 1 and 2.

day following the conclusion, modification or termination of the transaction.[91] A counterparty is required to keep a record of any SFT for at least five years following the termination of the transaction.[92] To ensure data transparency and availability, a trade repository is required regularly and in an accessible way to publish aggregate positions by type of SFTs reported to it. This would ensure direct and immediate access by the regulators to enable them to fulfil their regulatory and supervisory responsibilities and mandates.[93] The second requirement for transparency is directed at the investment funds, in the present instance money market funds, which are required to protect investors whose assets are used in SFTs. It addresses concerns that the owners of collateral and other securities were not fully aware of, or had not consented to, the risks that they were exposed to when financial institutions engaged in STFs. Now, the managers of money market funds are required to make detailed disclosures to investors in pre-contractual documents, for example prospectus and equivalent documents to investors, and in periodic reports on the use they make of SFTs, total return swaps and other financial structures having equivalent effect.[94]

In respect of OTC financial derivatives, the new regulations seek to enhance transparency so that the regulators have an overview of the derivatives market and can monitor risk and intervene to reduce systemic failure. The regulations address the past systemic risk problem that derivatives lacked transparency of prices, transactions and positions and thereby created difficulties for both participants and regulators. They focus on achieving heightened transparency in the market using trade repositories and trading venues.[95] All standardised derivatives are required to be traded on organised markets and, as much as possible, all other derivatives should be traded on a trading venue, which is a system or platform operated by an authorised investment firm or regulated exchange that brings together buyers and sellers of interests in financial instruments, including derivatives.[96] There is, in addition, a mandatory

[91] Regulation on Securities Financing Transactions, *supra*, article 4(1). Four of the six pan-European trade repositories are based in the UK; namely, CME Trade Repository Ltd, DTCC Derivatives Repository Ltd, ICE Trade Vault Europe Ltd, and UnaVista Ltd. Regis-TR S.A. is based in Luxembourg, while Krajowy Depozyt Papierow Wartosciowych S.A. is based in Poland.
[92] Regulation on Securities Financing Transactions, *id.*, Article 4(4).
[93] *Id.*, Article 12(1) and (2).
[94] Financial Conduct Authority Handbook, COLL 4.2.5B – 4.2.5C and 4.5.2 – 4.5.8.
[95] Commission of the European Communities, *Ensuring Efficient, Safe and Sound Derivatives Markets: Future Policy Actions*, *supra*, at para 1.
[96] See European Markets and Infrastructure Regulation (EMIR) 648/2012, *supra,* Article 2(4).

reporting requirement. Counterparties and Central Clearing Parties (CCPs)[97] shall ensure that the details of any executed, modified or terminated contract are reported to a trade repository or home regulator (Financial Conduct Authority (FCA), in the UK) no later than the working day following the conclusion, modification or termination of the contract.[98] In turn, trade repositories must report to the European Securities Markets Authority (ESMA) or the FCA,[99] which monitors the wider sector.

By way of comparison with banking, transparency is a well-established regulatory and supervisory requirement that has been re-emphasised after the global financial crisis. In banking, for instance, the relevant bank supervisor is required to determine that "banks and banking groups regularly publish information on a consolidated and, where appropriate, solo basis that is easily accessible and fairly reflects their financial condition, performance, risk exposures, risk management strategies and corporate governance policies and processes". [100] By way of further comparison with the regulation of insurance companies, disclosure and transparency constitute the third pillar of the modern regulatory regime (the other two being financial requirements and governance and supervision) and it requires insurers to publish details of the risks facing them, their capital structure, solvency and risk management.[101] Such disclosure and transparency, both to the public and regulators, is intended to foster greater market discipline on the insurers, enable early intervention by the regulators where necessary, and increase competition.[102] Thus, the regulations on shadow banking mirror those in mainstream banking and insurance and, therefore, form part of a wider financial regulatory framework.

4. Capital and liquidity requirements

The recent reforms further tighten and add detail to the already stringent financial requirements on money market funds by specifying the permissible investments and

[97] The recognised central clearing houses in the UK, which are supervised by the Bank of England under Part 18 of the Financial Services and Markets Act 2000 are: CME Clearing Europe Ltd, ICE Clear Europe Ltd, LCH. Clearnet Ltd, and LME Clear Ltd.
[98] European Markets and Infrastructure Regulation (EMIR) 648/2012, *supra*, Article 9.
[99] *Id.*, Arts 80-81.
[100] See Basel Committee on Banking Supervision, *Core Principles for Effective Banking Supervision, September 2012*, Principle 28 at http://www.bis.org/publ/bcbs230.pdf.
[101] Solvency II Directive, article 35 provides for supervisory reporting, while articles 51-55 provide for public disclosure. See also articles 254(2) and 256(1) for application to groups.
[102] European Commission, *Solvency II Overview – Frequently asked questions* (12 January 2015) http://europa.eu/rapid/press-release_MEMO-15-3120_en.htm (last accessed 1 October 2017).

maximum investment limits.[103] They emphasise the accurate valuation of assets, easy disposal and spreading of risk. MMFs, like other collective investment schemes, should hold a minimum amount of liquid assets to fortify themselves against massive redemptions and prevent fire sales, periodically conduct appropriate stress testing, and have tools to deal with exceptional market conditions and substantial redemption pressures. [104] There are significant restrictions on portfolio holdings in a bid to enhance liquidity and asset quality, requirements for the avoidance excessive concentrations of investments in one issuer or related group of issuers, and limitations on the aggregate exposures to particular types of investments.[105] The assets of the MMF must be transferable, mature in the short term (up to two years), and be of high credit quality.[106] The high quality of eligible assets must be established by a prudent and rigorous internal credit quality assessment procedure and must avoid a mechanistic reliance on credit rating agencies.[107]

This approach is similar to the approaches adopted in the regulation of banks, investment firms and insurance companies; the principles of financial regulation are, therefore, the same, but operate in different contexts. As briefly noted above in Part II (a), capital adequacy is a central tenet in the prudential regulation of banking and investment firms and the regulations have become more restrictive on the quality and quantity of bank assets in relation to capital. Furthermore, bank regulation requires the avoidance of concentrations of risk and large exposures to a single entity or related entities.[108] As noted succinctly by the Core Principles for Effective Banking Supervision, the relevant bank supervisor "sets prudent and appropriate capital adequacy requirements for banks that reflect the risks undertaken by, and presented by, a bank in the context of the markets and macroeconomic conditions in which it operates."[109] Furthermore, the relevant supervisor "determines that banks have adequate policies and processes to identify, measure, evaluate, monitor, report and control or mitigate concentrations of risk on a timely basis"[110]. Similarly, insurance companies are required to

[103] Financial Conduct Authority Handbook, COLL 5.
[104] See Ajibo, *supra*.
[105] Financial Conduct Authority Handbook, COLL 5; Moloney, *supra*, at 265.
[106] Financial Conduct Authority Handbook, COLL 5.2 – 5.5.
[107] Regulation on Securities Financing Transactions, *supra*, Articles 16 and 17.
[108] See further, Basel Committee on Banking Supervision, *Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems December 2010* (rev June 2011) http://www.bis.org/publ/bcbs189.pdf; generally Capital Requirements Regulation (575/2013) and specifically Part 4 on the regulation of large exposures.
[109] *Core Principles for Effective Banking Supervision*, *supra*, Principle 16; see also Capital Requirements Regulation (575/2013).
[110] *Core Principles for Effective Banking Supervision*, *id.*, Principle 19.

hold minimum capital levels backing their operations and must regularly report to supervisors on their portfolios.[111] There are limitations on their investments because insurance companies are only permitted to invest in assets whose risks they can properly identify, measure, monitor, manage, control and report, and appropriately take into account in the assessment of their overall solvency.[112] Capital calculations are highly prescribed[113] and insurance supervisors are required to intervene and require remedial action if that capital falls below required thresholds[114] or there is excessive concentration of risk.[115]

5. Risk retention and mitigation

The reduction of systemic risk is at the centre of all the regulatory reforms of the shadow banking system and in the pre-crisis years, there were many sources for such risk; for example, some market participants did not retain sufficient economic interest in the products they created and thus did not have on-going interest in their success, some did not evaluate risk properly, while others did not take sufficient risk-mitigation techniques. Post-GFC, many of the measures adopted introduced further granulity in the regulations such as risk awareness, calculation, mitigation and avoidance. In securitisations, several risk retention rules must be complied with. The originator, sponsor or original lender is required to maintain, on an ongoing basis, a material net economic interest in the securitisation of at least 5%. Where those three institutions cannot agree on whom to retain the interest, it shall be retained by the originator. The net material economic interest need only be retained by one type of retainer and cannot be split among them, and an entity that has been established or operates for the sole purpose of securitising exposures is not considered as an originator.[116] That risk retention obligation is in addition to the due diligence obligation on the part of the investor to ensure that the retention obligation is being met.[117] Furthermore, the interest and currency risks in the securitisation must be mitigated and the mitigation measures disclosed.[118]

[111] Financial requirements form the first pillar of the regulation of insurance companies: see Solvency II Directive Articles 100-102 and 128.
[112] Solvency II Directive, Article 132.
[113] Solvency II Directive, Articles 101 and 129.
[114] Solvency II Directive, Articles 136-141.
[115] Solvency II Directive, Articles 244 and 246.
[116] Securitisation Regulation, *supra*, Article 6.
[117] Andrew Bryan and Kevin Ingram, *The Proposed Securitisation Regulation,* Clifford Chance Briefing Note September 2015 (unpublished) at 2
[118] Securitisation Regulation, *supra*, Article 9.

The principle of risk mitigation in money market funds has led to further tightening prudential regulation by focusing on the avoidance of illiquidity and concurrent large redemptions. One approach to this is through the requirement for the diversification of investments. Thus, there are specific limitations on the types of assets in which the MMFs could invest and the risks they may take, which are principally limited to liquid, short-term financial instruments.[119] Prudent risk management also requires that MMFs must regularly conduct stress testing[120] and know their investors so that they are able to anticipate concurrent redemptions.[121] Furthermore, liquidity fees and suspension gates have been introduced as new safeguards to stem massive, sudden and concurrent investor redemptions.[122] To illustrate, whenever weekly maturing assets fall below 30% or net daily redemptions on a single day exceed 10%, the board of the constant NAV MMF may apply one or more of (i) liquidity fees of up to 2% on redemptions, (ii) redemption gates limiting any one dealing to a maximum of 10% of shares or units in the MMF, or suspension of redemptions for up to 15 days. Liquidity fees and/or redemption gates must be applied if weekly maturing assets fall below 10%.

The Regulatory Reform to reduce systemic risk in OTC Derivatives has introduced further granulity in the regulations concerning risk awareness, monitoring, quantification and mitigation. The first regulatory measure addresses the systemic risk problem that some participants in the derivatives market did not price counterparty risk correctly. Counterparty risk been addressed by imposing the obligation of mandatory central clearing for all eligible OTC contracts, and similar measures for bilateral clearing.[123] Central clearing is a risk-mitigation technique since the central clearing party (CCP) interposes itself between each buyer and seller, becoming a party to each contract, and by “establishing positions, including the calculation of net obligations, and ensuring that there is adequate collateral for the parties' respective obligations.[124] The enumerated categories of eligible derivatives are broad in scope[125] and can be expanded having regard to the need to mitigate systemic risk. A

[119] See above.
[120] Regulation on Securities Financing Transactions, *supra*, Article 25.
[121] *Id.*, Article 24
[122] *Id.*, Article 29.
[123] *Id.*, Article 4(1).
[124] See the European Markets and Infrastructure Regulation (EMIR)definition of 'CCP' and 'Clearing' in article 2(1) and (3). For a critique of central clearing parties, see Andrew Nichol, *Hedging Against the Next Financial Crisis: Proposals for Managing Systemic Risk in Centrally Cleared Derivatives Transactions* 29 BFLR 169-184 (2014).
[125] They include options, futures, swaps, forwards relating to, among others, foreign exchange, interest rate protection, credit, commodities, or equities.

‘financial counterparty’, to whom the requirement applies, is broadly defined to capture credit institutions including banks, insurance and reinsurance companies, investment firms, registered UCITS funds, pension funds and alternative investment fund managers;[126] in other words, many of the financial institutions routinely involved in the shadow banking sector. Even if an OTC contract is considered ineligible for clearing, the OTC Regulation requires financial counterparties, by exercising due diligence, to apply the risk management techniques of measuring, monitoring and mitigating operational risk and counterparty credit risk. The techniques include the utilisation of electronic or other timely confirmation, portfolio evaluation and reconciliation, daily mark-to-market, segregation of collateral and the holding of capital.[127] The second measure targets operational risk, which is a sub-category of systemic risk; that is, the loss attributable to inadequate or failed internal processes, or from external events including legal risk.[128] Operational risk is reduced by moving from a predominantly custom-made, over-the-counter (OTC) market to standardised contracts, together with other developments in industry practices, particularly the move towards electronic trading, central clearing, reporting to a trade repository, and legal reform.

By quick analogy with banking regulation, banks are required to have adequate risk management processes addressing market, liquidity and operational risk.[129] They should also have policies and processes for the early identification and management of problem assets. Furthermore, they should maintain adequate provisions and reserves.[130] Similarly, insurance companies are required to have effective systems of governance that provide for sound and prudent management of their business.[131] They are also required to have adequate risk management policies, techniques and reporting procedures to identify and monitor the risks to which they may be exposed including their own risk and solvency assessment.[132] Furthermore, insurance supervisors, on their part, have powers of to verify systems of governance, evaluate risks and to require that systems of governance be improved and strengthened.[133] Drawing from the banking and insurance industries, the principles of risk mitigation and retention that have been applied to the new shadow banking sector are,

[126] European Markets and Infrastructure Regulation (EMIR), Article 2(8).
[127] *Id.*, Article 11.
[128] See e.g. *Ensuring Efficient, Safe and Sound Derivatives Markets: Future Policy Actions*, para 4
[129] See, e.g., Capital Requirements Regulation (575/2013) chapter 4 on credit risk mitigation.
[130] See, *Core Principles for Effective Banking Supervision*, *supra*, Principles 18, 22, 24 and 25.
[131] Solvency II Directive, Article 41.
[132] Solvency II Directive, Article 45.
[133] Solvency II Directive, Article 41(5).

therefore, part of a wider principle of risk management through and in turn part of the overarching principles of financial regulation.

6. Resolution and crisis management

A novelty of recent financial reform tackles the issue of a failing financial institution that is bailed out, as some mutual funds and banks recently were, thus burdening the taxpayers and impacting on the wider economy. Policy makers have made it a priority to reduce taxpayer bailouts and minimise disruptions to the wider economy caused by failing large financial institutions. The resolution and crisis management regime, colloquially known as the 'living will" requirement,[134] and best known in banking because banks were the largest causalities in the financial crisis, requires a systemically important bank (or other financial institution) to have a bespoke credible and detailed plan for its easy winding up on the advent of trouble or ring-fencing the troubled parts without causing harm to the depositors or the global financial system and without relying on a government (or taxpayer) bailout.[135] In MMFs, the resolution and recovery concept is applied indirectly in what is probably the most fundamental reform, seen above, which is the requirement that most money market funds move from a constant value net asset valuation to a floating value net asset valuation. That requirement directly places the risk of loss on the investor and, thus, significantly relieves the pressure for fund bailout. There are complementary provisions that clearly shift the risk of loss to the investor; such as requiring every MMF to indicate on every external document the specific type of MMF it is, that it is not a guaranteed investment, that the principal investment is capable of fluctuation, that it does not rely on external support for guaranteeing liquidity or stabilising the NAV, and that the investor bears the risk of loss to the principal.[136] The new requirements for redemption gates and fees, seen above, constitute a part of crisis management.

7. Observations on Regulatory Reform

The reform of shadow banking has been both macro and micro-prudential on the one hand, and domestic, regional and international on the other hand. The first comprehensive phase has been

[134] Technically it is called the recovery and resolution scheme (see e.g. Armour et al, *supra*, at 356) and comprises a third limb – how the troubled firm could raise extra money.
[135] Ring-fencing, in Financial Services and Markets Act 2000 Part 9B, was introduced by Financial Services (Banking Reform) Act 2013 Part 1; See also the United States Dodd-Frank Wall Street Reform and Consumer Protection Act, (Pub.L. 111–203, H.R. 4173) section 165(d); Armour et al, *supra*.
[136] See e.g. Regulation (EU) 2017/1131 on Money Market Funds, Articles 35 - 36.

completed and its themes comport with the contemporary themes of financial regulation. Notably, it is a sequel to the regulation of banking where there is an institutional structure and an immense body of regulations for identifying and reducing systemic risk,[137] promoting the safety and soundness of the financial system,[138] and ensuring that financial institutions follow principles of good business conduct.[139] Even novel ideas in shadow banking regulation, such as the living will and ring-fencing have been trailed in banking regulation.[140]

IV. Evaluation and Conclusion

Shadow banking was ushered on the global stage amidst negative publicity and ambiguity of its constituent elements, but has since become amenable to a fairly precise definition and recognised as a separate sector in the financial system complementary to banking, capital markets and the generic 'other financial institutions'. As seen above, it consists of non-bank credit provision or "alternative lending" offered by well-established financial institutions and activities as well as new participants. We specifically analysed money market funds, securitisation, and securities financing transactions.

This article applauds the core principles in the new regulations on the shadow banking system as the optimal solution to securing the effective regulation of an important component of the financial system, for two reasons. First, the process that led to their creation was consultative and international; led by the Financial Stability Board in developing global policy[141] and, subsequently, adopting a consultative approach in developing the implementing legislation in the United Kingdom. Secondly, the new regulations substantively conform to contemporary global themes for risk reduction in the wider financial regulation, such as improving the quality and quantity of capital in the financial system, the market valuation of financial assets, increased transparency and due diligence concerning transactions, arm's-length operations among financial institutions, central clearing and standardisation of securities, easy winding up of a failing financial institution, and stringent organisational and business conduct standards

[137] See Financial Policy Committee, established under the Financial Services Act 2012.
[138] See Prudential Regulation Authority, established under the Financial Services Act 2012.
[139] The Financial Conduct Authority, established under the Financial Services Act 2012.
[140] See Banking Act 2009, and Financial Services (Banking Reform) Act 2013.
[141] See e.g., Alexander Goodenough, *Dodd-Frank: Regulating Systemic Risk in the Offshore Shadow Banking Industry* 3 George Mason Journal of International Commercial Law 137, 160-172 (2011).

among financial institutions.[142] The recent regulations are comprehensive and diverse because the shadow banking sector is an aggregation of different institutions and activities, even though, ultimately, the activities are carried out by institutions.

As seen above, the legal discourse about shadow banking is essentially about the regulations necessary for the reduction of systemic risk in the financial market. Generally, financial regulation aims to maximise efficiency, minimise risk and reduce regulatory arbitrage.[143] The efficiency of shadow banking lies in its disintermediation of finance outside the traditional banking system that enhances consumer welfare by providing more products to more people at greater speed and lower cost.[144] This is achieved through a number of positive economic functions, namely collective fund management, direct loan provision, secured financial transactions based on financial collateral, and securitisation.[145] On the efficiency score, then, the global financial community needs a robust and resilient shadow banking sector. The primary risk of shadow banking is systemic risk arising from a whole array of factors, such as maturity and liquidity transformation, leverage, imperfect credit risk transfer and regulatory arbitrage. More simply, as seen above, shadow banking is a potential source of financial instability because it serves the same functions and is interconnected with banking. Regulatory arbitrage undermines the benefits of financial regulation when tighter regulation causes an activity to shift to less regulated entities or jurisdictions.[146] Thus, this article has welcomed the more stringent regulation of shadow banking to reduce the risks to financial stability or the potential to exploit regulatory arbitrage. The article, therefore, aligns to the consensus that shadow banking should be regulated at an appropriately calibrated level that is not so stringent as to cause business and risk to migrate elsewhere.[147]

As noted in part III (a) above, the policy formulation that preceded the detailed regulations on shadow banking was spearheaded by the Financial Stability Board, which coordinated other standard-setting bodies and national authorities within its mandate of global financial reform.

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[142] See e.g. Avgouleas, *supra*, at 675-678; Mulbert, *supra*, at 386-391; Bryceson, *supra*, at 42; Financial Stability Board, *Strengthening Oversight and Regulation of Shadow Banking: Policy Framework for Strengthening Oversight and Regulation of Shadow Banking Entities* (29 August 2013) at http://www.fsb.org/wp-content/uploads/r_130829c.pdf; Tarullo, *supra*, at 12-14; Kodrens, *supra*, at 43; Jones, *supra*. On the theme of transparency in financial markets, further see Moloney, *supra*, at 480-498; Luca Enriques and Sergio Gilotta, *Disclosure and Financial Market Regulation* in Moloney, Ferran and Payne, *supra*, at 512-536.
[143] See e.g. Schwarcz, *supra*, at 631-640.
[144] *Id.*
[145] *Global Shadow Banking Monitoring Report 2015*, *supra*, para 2.1.
[146] Tarullo, *supra*, at 16.
[147] *Id.*

While the ideological bent of the most advanced economies and financial markets that constitute the G20 is towards the facilitation of competition, it has been acknowledged that in the sphere of financial regulation regulatory competition leads to the negative effects of arbitrage, information asymmetry, duplication of rules and a reduced quality of regulatory intervention; this is because jurisdictions that have less intrusive regulations or enforcement gain at the expense of the more rigorous regulators or enforcers.[148] In contrast, coordination promotes efficient capital markets and usually leads to standardisation which, in turn, leads to substantive convergence and the facilitation of market behaviour, even though it might restrict innovation.[149] That explains the similarity of the national regulations on key shadow banking components across major jurisdictions.[150]

Remarkably, shadow banking does not raise new theories to regulation; rather, it presents a new sphere for the application of regulatory techniques that have been trailed and tested in the banking, securities and other financial sectors. This is partly because the reform of shadow banking regulation is part of the significant financial reforms of the banking and wider financial industry and is similarly geared towards greater financial stability and the resilience of the sector. It is also because, pre-reform, there was significant interface between banking and shadow banking risks that necessitated similar responses. That interface was illustrated throughout part II, above. First, both banking and shadow banking used funding methods that involve maturity and liquidity transformation and, thus, were susceptible to runs. Secondly, the linkages between their business activities, exacerbated by a lack of transparency, led to potential spill-overs from shadow banks to banks and vice versa. Those linkages caused a build-up of systemic risk indirectly via credit intermediation chains, meaning that problems in the unregulated or lightly regulated system could easily spread to the traditional banking system.[151] Thirdly, shadow banks were amenable to high levels of leverage characterised by high debt-to-equity ratios and little liquidity relative to the assets available to settle immediate claims. High leverage, which may not be readily apparent to the

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[148] Rolf H. Weber, *Regulatory Competition and Coordination as Policy Instruments* 30 (11) Journal of International Banking Law & Regulation 605 (2015).
[149] *Id.*, 608.

[150] Ajibo, *supra*; Richard Best, *4 Factors to Know About Money Market Reform in 2016 (FII, BAC)* Investopedia 21 April 2016 http://www.investopedia.com/articles/investing/042116/4-factors-know-about-money-market-reform-2016-fii-bac.asp (last accessed 28 September 2017).
[151] The interconnectedness between banking and shadow banking has been the subject of study and specific recommendations by the Financial Stability Board (See Financial Stability board, *Global Shadow Banking Monitoring Report 2012*, part 5 at http://www.fsb.org/wp-content/uploads/r_121118c.pdf).

investors and regulators, magnifies profits during boom times and exacerbates losses during downtowns, thus increasing pro-cyclical risks.[152] Since shadow banking institutions were generally less regulated than banks, they could engage in higher-risk activities or over-commit themselves than would be permitted for banks.[153] Fourthly, some shadow banking used some risky business models that were more tightly controlled in traditional banking. For instance, some structured investment vehicles and other off-balance-sheet vehicles confined their borrowing by relying on statutory exemptions; for that reason, the borrowing was unregulated and not subject to prudential requirements. The issues were, therefore, similar to those encountered in banking if it were not for its tighter regulation.

Not surprisingly, therefore, the regulation of shadow banking has a distinctly similar flavour to banking regulation, tempered only by a couple of factors. First, banking regulation focuses on the protection of depositors and, yet, there are no depositors in the shadow banking system. Logically, therefore, the regulation of shadow banking should not include the elements aimed at the protection of depositors such as a public guarantee scheme. Secondly, shadow banking regulation, born of the global financial crisis, principally aims to avert future crises or lessening their impact on the economy. It therefore focuses on the mid- and tail- end stages in the life cycle of a financial institution or activity, whereas the conventional regulation of banking focused on the earlier stages in the life cycle of a bank; that is, setting it up and ensuring that it operated effectively in the economy. Nevertheless, there is remarkable similarity in the core themes for the post-crisis regulation of banking and the regulation of shadow banking because both sets of regulation have the same objectives.

This article has, coincidentally, exposed the limits of legal regulation because some significant issues in shadow banking are economic rather than legal; for example, identifying the parameters of the shadow banking system and the calculation of the risks it generates. These economic realities do influence the crafting of legal regulations to the sector and any new reforms. It is still fair to say, though, that the initial period of policy formulation and regulation of the shadow banking system was a reaction to the global financial crisis, whereby the bias was clearly on prudence aimed principally at financial stability and the

[152] Michael Simkovic, *Secret Liens and Financial crisis of* 83 American Bankruptcy Law Journal 253(2008).

[153] An example of an unregulated activity is a credit default swap (CDS) and Collateralised debt obligations (CDOs).

restoration of confidence in the financial system. As the first reaction to the raw memory of the global financial crisis, the new regulations were pitched close to the ideal solutions. The subsequent period has seen an increased focus on the social usefulness of shadow banking and a review of possible overreach or unintended consequences. It is suggested that any problems could be fixed by adjustments within the core principles for maintaining financial stability.

A stable and robust financial system requires continuous reforms at a pace that does not detract from certainty for financial transactions. Shadow banking is here to stay; it is an essential component of the economy and the global regulators are well-equipped to deal with it as a new sector of the financial industry. The Financial Stability Board and the global financial community have crafted an appropriate policy framework and a suitable approach to regulation and supervision of shadow banking; however, strict regulation makes a fertile ground for innovations that thwart the existing framework, hence the need for continuous refinement. A flexible approach focusing on the complementary goals of reducing systemic risk and promoting financial stability is required from the regulators to keep shadow banking beneficial and under supervisory oversight.