Bank Proprietary Trading and Investment in Private Funds: Is the Volcker Rule a Panacea or Yet Another Maginot Line?

Hossein Nabilou[*]

The Volcker Rule is part of the post-financial-crisis regulatory reforms that partly aim at addressing problems associated with proprietary trading by banking entities and the risks associated with the interconnectedness of private funds (e.g., hedge funds and private equity funds) with Large Complex Financial Institutions (LCFIs). This reform aim is pursued by introducing provisions that prohibit proprietary trading and banking entities' investment in and sponsorship of private funds. These prohibitions have three specific objectives: addressing problems arising from the interconnectedness of private funds with LCFIs; preventing cross-subsidization of private funds by depository institutions having access to government explicit and implicit guarantees; and regulation of conflicts of interest in the relationship between banks, their customers, and private funds. Having studied the provisions of the Volcker Rule in light of its objectives, this article highlights the potential problems with the Rule and provides an early assessment as to how successful the Rule is in achieving its objectives.

With respect to achieving these objectives, the Volcker Rule can only be partially successful for various reasons. The foremost reason is the numerous built-in exceptions (i.e., 'permitted activities') in the Rule included as a result of political compromises. Although the permitted activities under the Rule are backed by sound economic reasoning, there are serious practical problems with these exceptions. The main problem involves distinguishing prohibited activities from permitted activities. Such determinations require regulatory agencies to make subjective and case-by-case evaluations of activities. It is not known what the costs of such determinations would be in practice or how regulators would react if the costs of such determinations exceed their benefits.

Regarding concerns about moral hazard, the Volcker Rule strikes a reasonable balance between preventing such an opportunistic behaviour (i.e., taking advantage of government subsidies) while not stifling the investment by the banking industry in start-up private funds. However, with regard to mitigation of conflicts of interest, the Volcker Rule only marginally addresses such concerns. This limited regulatory intervention in mitigating conflicts of interest could be partially understood in light of the fact that market forces and private law have been successful in addressing conflict-of-interest concerns originating from the relationships between hedge funds and the banking industry.

---

* Postdoctoral Researcher in Banking and Financial Law, University of Luxembourg, Faculty of Law, Economics and Finance.

La règle Volcker s'inscrit dans le cadre des réformes qui ont fait suite à la crise financière et dont un des objectifs était de régler les problèmes liés aux activités de négociation pour compte propre des banques et aux risques résultant de l'interconnectivité des fonds privés (par exemple, des fonds de couverture et des fonds de capital investissement) parrainés par de grandes institutions financières complexes. Pour atteindre cet objectif, on propose des dispositions qui interdiront les activités de négociation pour compte propre ainsi que les investissements par des entités bancaires dans des fonds privés et leur parrainage de tels fonds. Ces interdictions ont trois objectifs précis : régler les problèmes découlant de l'interconnectivité des fonds privés et des grandes institutions financières complexes; empêcher l'interfinancement des fonds privés par des institutions de dépôt ayant accès à des garanties gouvernementales, apparentes ou implicites; régler les conflits d'intérêts entre les banques, leurs clients et les fonds privés. Après avoir examiné les dispositions de la règle Volcker à la lumière de ces objectifs, l'auteur se penche sur les problèmes éventuels pouvant être causés par la règle Volcker et présente une évaluation préliminaire de l'efficacité de cette règle.

Pour ce qui est de la réalisation de ses objectifs, la règle Volcker ne peut avoir qu'un succès limité et ce, pour diverses raisons, la principale étant que la règle comporte plusieurs exceptions (c'est-à-dire des « activités permises ») introduites à raison de compromis de nature politique. Les activités permises par la règle s'appuient sur un solide raisonnement économique, mais posent de sérieux problèmes sur le plan pratique. Le principal problème réside dans la difficulté de distinguer les activités interdites de celles permises. Pour établir cette distinction, les autorités de réglementation doivent faire une évaluation subjective et au cas par cas des activités. Il est difficile d'établir les coûts réels de ces déterminations ou comment les autorités de réglementation réagiraient si les coûts de ces déterminations s'avéraient supérieurs aux avantages procurés.

Pour ce qui est des préoccupations liées à l'aléa de moralité, la règle Volcker établit un équilibre raisonnable entre la nécessité d'empêcher des comportements opportunistes (c'est-à-dire de tirer profit de subventions gouvernementales) et la nécessité de ne pas décourager les investissements par le secteur bancaire dans des fonds privés en démarrage. Toutefois, dans l'élaboration de la règle Volcker, on a montré peu de préoccupation pour l'atténuation des conflits d'intérêts; ceci s'explique peut-être en partie parce que les forces du marché et le droit privé sont parvenus à régler les situations de conflits d'intérêts soulevés par les liens entretenus par les fonds de couverture avec le secteur bancaire.

1. INTRODUCTION

The US presidential campaign of 2016 rekindled one of the age-old economic, legal, and political controversies about the powers and structures of big banks.[1] The debate about the structural reforms of the banking sector, which

[1] Both candidates in the Democratic Party's 2016 presidential primary elections, Hillary

is reminiscent of the *Glass-Steagall Act*, drove a wedge between presidential candidates and made itself one of the topical issues at the top of the banking reform agenda. An implied consensus from both sides of the political spectrum has emerged on the assertion that the financial regulatory reforms introduced in the aftermath of the financial crisis have not gone far enough.[2] This is in spite of the fact that in 2010, US regulators introduced sweeping regulations with the aim of restricting banking powers and restructuring the industry. These reforms came in the wake of the global financial crisis that stirred tidal waves of new regulations on both sides of the Atlantic. In the US, the most significant sweeping change was the enactment of the *Dodd-Frank Wall Street Reform and Consumer Protection Act* (*Dodd-Frank Act*) passed on July 21, 2010.[3] This Act triggered massive regulatory reforms and resulted in a major overhaul of the regulatory environment of US financial markets. These reforms are only comparable, in extent and depth, to the financial regulatory overhaul the US made in the wake of the Great Depression.[4]

The main objectives of the *Dodd-Frank Act* are to promote "the financial stability of the United States by improving accountability and transparency in the financial system, to end 'too big to fail,' to protect the American taxpayer by ending bailouts, [and] to protect consumers from abusive financial services practices."[5] To promote financial stability and address systemic risk, the *Dodd-*

Clinton and Bernie Sanders, advocated breaking up banks by using the Glass-Steagall prohibitions. See Barney Jopson, Courtney Weaver & Ben McLannahan, "Explaining Bernie Sanders' 'Too Big To Fail' Plan", *Financial Times*, (8 April 2016) online: <https://www.ft.com/content/8a176bc0-fda2-11e5-a31a-7930bacb3f5f>. For Hillary Clinton's pre-general election position on the banking reforms agenda, see Gary Sernovitz, "What Hillary Clinton Gets (and Bernie Sanders Doesn't) about Wall Street", *The New Yorker* (10 December 2015), online: <http://www.newyorker.com/business/currency/hillary-clinton-gets-bernie-sanders-doesnt-wall-street>.

2 It is not only politicians who take this position; the idea that financial regulations have not gone far enough has its proponents in academic circles, too. See Ross P. Buckley, *et al.*, *Reconceptualising Global Finance and its Regulation* (New York: Cambridge University Press, 2016) at 3-6.

3 See Charles W. Calomiris, "The Political Lessons of Depression-Era Banking Reform" (2010) 26 Oxford Review of Economic Policy 540, giving an account of banking regulatory reforms in the aftermath of the Great Depression.

4 The *Dodd-Frank Act* was 845 pages long and included 16 titles and 225 new rules involving 11 agencies. See Viral V. Acharya & Matthew Richardson, "Implications of the *Dodd-Frank Act*" (2012) 4 *Annual Review of Financial Economics* 1 [Acharya & Richardson] at 2. It is estimated that the Act will result in approximately 400 rules and 87 studies before being fully implemented. See Davis Polk, "Dodd-Frank Rulemaking Progress Report: Progress as of June 1, 2011" (2011), online: <https://www.davispolk.com/files/uploads/Dodd-Frank%20documents/Dodd-Frank.ProgressReport.-jun11.pdf>. Thus far, a majority of the regulations proposed pursuant to the Act have been passed. See Davis Polk Regulatory Tracker, *Dodd-Frank Progress Report: October 2013* (2013) online: <https://www.davispolk.com/Dodd-Frank-Rulemaking-Progress-Report/>.

5 Negative reactions to the *Dodd-Frank Act* abound. See Michael Hirsh, "Bonfire of the

Frank Act introduces far-reaching provisions focused on microprudential as well as macroprudential regulation.[6] One of the main regulatory provisions embedded in Section 619 of the Title VI of the *Dodd-Frank Act* is the so-called Volcker Rule (bearing the name of its mastermind, Paul Volcker).[7] The Rule seeks to restrain banks' proprietary trading activities and sever banks' sponsorship of private investment funds. By doing so, the Rule intends to ameliorate three basic problems in the financial sector by: (i) containing systemic risk by severing inter-linkages between private funds (hedge funds[8] and private equity funds) and depository institutions; (ii) addressing conflicts of interest where depository institutions engage in proprietary trading and sponsorship of private funds; and (iii) limiting the transfer of government subsidies from depository institutions to private funds (cross-subsidization of private funds by government subsidies through depository institutions).[9]

This article provides an early assessment of the promises and pitfalls of the Volcker Rule and evaluates the success of the Rule in achieving its objectives. In

---

Loopholes" *Newsweek* (21 May 2010) online: <http://www.icmagroup.org/assets/documents/Maket-Practice/Regulatory-Policy/Repo-Markets/Shadow-banking-and-repo-20-March-2012.pdf> (calling the *Dodd-Frank Act* "the Accountants' and Lawyers' Welfare Act of 2010" because it may boost their business).

6 Microprudential regulation is about the study of the exposure of an individual financial institution to exogenous risks but it does not take into account the systemic importance of an individual financial institution. In other words, microprudential regulation is about the stability of each individual institution and its objective is to force an individual financial institution to behave prudently. See Markus Brunnermeier *et al.*, "The Fundamental Principles of Financial Regulation: Geneva Report on the World Economy 6-8", International Center for Monetary and Banking Studies (2009), online <https://www.princeton.edu/~markus/research/papers/Geneva11.pdf> [Brunnermeier *et al.*].

In contrast, macroprudential regulation involves safeguarding the stability of the financial system as a whole. It requires a system-wide analysis and involves identifying the principal risk factors in a macro-level financial system. See Miquel Dijkman, *A Framework for Assessing Systemic Risk*, The World Bank Open Knowledge Repository (2010), online: <http://is.vsfs.cz/el/6410/leto2014/D_TFT/3798061/um/um/2601528/2602338/systemic_risk_WPS5282_1_.pdf> See also Brunnermeier *et al.*, at 10.

7 12 U.S.C. § 1851. The Volcker Rule is sometimes called 'Glass-Steagall Lite'. Indeed, only four sections of the *Banking Act* of 1933 comprise the *Glass-Steagall Act*.

8 See Hossein Nabilou & Alessio M. Pacces, "The Hedge Fund Regulation Dilemma: Direct vs. Indirect Regulation" (2015) 6 William & Mary Business Law Review 183 [Nabilou & Pacces] at 185-186 (defining hedge funds as "investment vehicles that are privately organized, with specific fee structures, not widely available to the public, aimed at generating absolute returns irrespective of the market movements (Alpha) through trading rather than investment income, and by making use of a variety of trading strategies at their disposal").

9 See 12 U.S.C. § 1851(b)(1). These objectives can be inferred from the Volcker Rule as it requires the Financial Stability Oversight Council (FSOC) to provide a study as to the achievement of these objectives, among others.

doing so, after shedding light on the underlying economic logic for the introduction of the Volcker Rule and elucidating its objectives, this article will highlight the potential loopholes and flaws in the Rule that might get in the way of the Rule achieving its objectives. The first section examines the core objectives of the Volcker Rule and the second section delves more deeply into the study of the provisions of the Rule – particularly its prohibitions on proprietary trading and restrictions on investment in hedge and private equity funds. The third section evaluates the potential economic consequences of the Rule for the hedge fund industry, the banking sector, and the broader economy.

(a) The objectives of the Volcker Rule

In general, the Volcker Rule seeks to address three problems in the financial sector: (i) managing and containing systemic risk by attempting to close the contagion channels and sever the inter-linkages between private funds and depository institutions; (ii) addressing conflicts of interest where depository institutions engage in proprietary trading and investment in or sponsorship of private funds; and (iii) limiting the transfer of government subsidies from depository institutions to private funds.

(b) Regulating systemic risk by closing contagion channels

One of the main objectives of the Volcker Rule is to address the risks originating from the interconnectedness of private funds with Systemically Important Financial Institutions (SIFIs) with the aim of containing risk-spillovers from private funds to depository institutions. The Volcker Rule has its genesis in the recommendations of the Group of Thirty (chaired by Paul Volcker) issued immediately after the global financial crisis.[10] The report highlighted several problems with proprietary trading and interrelationships of banking entities with hedge funds. The most notable of these problems involved potential systemic aspects of hedge funds and their interconnectedness with LCFIs. The report emphasized that, among others, large losses in proprietary trading and sponsorship of hedge funds and exposure to structured credit products during the financial crisis placed banking entities at risk and undermined their ability to honour their obligations towards their clients, counterparties, and investors.[11]

In order to understand the systemic risk concerns about hedge funds and their relationships with banks, it is important to view hedge funds as part of the shadow banking system. The shadow banking system (also known as securitized banking) is a system of credit intermediation involving activities and institutions outside the traditional banking system.[12] It mainly refers to the origination,

---

[10] The Group of Thirty, "Working Group on Financial Reform, Financial Reform: A Framework for Financial Stability" (2009), online: <http://fic.wharton.upenn.edu/fic/Policy%20page/G30Report.pdf> [The Group of Thirty, Working Group on Financial Reform].

[11] *Ibid.* at 27.

acquisition, and pooling of debt instruments into diversified pools of loans and financing those pools with short-term external debt.[13] It is mainly because of this function, which largely overlaps with core banking activities, that shadow banks are given the label of "non-banks performing bank-like functions".[14] The shadow banking system is also considered as an alternative term for market finance,[15] because it "decomposes the process of credit intermediation into an articulated sequence or chain of discrete operations typically performed by separate specialist non-bank entities which interact across the wholesale financial market".[16] In the recent global financial crisis, the shadow banking system played a major role;[17] however, relatively less attention was paid to it in the regulatory overhaul of the financial markets triggered by the repercussions of the crisis.[18]

The key to identifying shadow banks is spotting the maturity-transformation function in their activities.[19] Maturity transformation entails a mechanism for intermediation through which short-term deposits are transformed into long-

---

12 Financial Stability Board, "Progress in the Implementation of the G20 Recommendations for Strengthening Financial Stability: Report of the Financial Stability Board to G20 Finance Ministers and Central Bank Governors" (2011), online <http://www.fsb.org/wp-content/uploads/r_110415a.pdf?page_moved=1> [Financial Stability Board].

13 Nicola Gennaioli *et al.*, "A Model of Shadow Banking", NBER Working Paper No. 1711 (2011), online: <http://faculty.econ.ucdavis.edu/faculty/kdsalyer/LECTURES/Ecn235a/PresentationPapersF11/Shleifer_Vishny_ShadowBanking.pdf>.

14 The "non-banks credit intermediation" is another term for shadow banking used by the Financial Stability Board (FSB). See The Group of Thirty, Working Group on Financial Reform, *supra* note 10. See also Financial Stability Board, *supra* note 12.

15 European Repo Council, Shadow Banking and Repo (2012), online <http://www.google.ca/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0ahUKEwjrqLCNrcjRAhXj34MKHd15BJUQFgggMAE&url=http%3A%2F%2Fwww.icmagroup.org%2Fassets%2Fdocuments%2FMaket-Practice%2FRegulatory-Policy%2FRepo-Markets%2FShadow-banking-and-repo-20-March-2012.pdf&usg=AFQjCNG_lonft7p6KfHwiUe7yxC9DEMXpQ> [European Repo Council].

16 *Ibid.* See also European Commission, Green Paper: Shadow Banking (2012), online: <http://ec.europa.eu/internal_market/bank/docs/shadow/green-paper_en.pdf>.

17 Gary B. Gorton & Andrew Metrick, "Securitized Banking and the Run on Repo" (2012) 104 Journal of Financial Economics 425. See also Gary B. Gorton, *Slapped by the Invisible Hand: The Panic of 2007* (Oxford: Oxford University Press, 2010) (illustrating in detail the role of shadow banks in the recent financial crisis).

18 See Tobias Adrian & Adam B. Ashcraft, "Shadow Banking Regulation", Federal Reserve Bank of New York Staff Report (2012), online: Federal Reserve Bank of New York <https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr458.pdf> (providing an overview of the shadow banking sector and the risks involved therein).

19 Alessio M. Pacces & Heremans Dirk, "Regulation of Banking and Financial Markets" in Alessio M. Pacces and R.J. Van den Bergh, eds., *Encyclopedia of Law and Economics: Regulation and Economics*, 2nd ed. (Cheltenham: Edward Elgar, 2012) 950. Maturity transformation in banking is often accompanied by liquidity transformation; however,

term credits through borrowing short and lending long. In other words, this concept involves issuing short-term liabilities to finance long-term assets. Banks' role in maturity transformation, which involves holding longer-term assets than liabilities, delivers major economic and social value by enabling sectors in the real economy to hold shorter-term assets than liabilities. This ultimately encourages long-term capital investments.[20]

Despite being highly beneficial to the real economy, maturity transformation involves major risks. These risks arise from the nature of the maturity mismatch between assets (long-term loans) and liabilities (demand deposits) of banking entities, which has historically led to recurrent bank runs and panics.[21] Banks have traditionally developed specific arrangements to address risks of maturity transformation, which is mostly reflected in their liquidity policies. These policies often involve limiting the extent of maturity transformation in the bank, its access to committed lines of credit from other banks,[22] and its borrowing from interbank markets.[23]

In addition to the internal risk-mitigating strategies of a bank, governments guarantee bank deposits up to certain limits. Deposit insurance was primarily introduced to prevent bank runs and panics and to sustain financial stability.[24] Furthermore, banks are provided with access to the 'discount window' or the 'lender of last resort' (LOLR) facilities of central banks. These central bank facilities are devised to prevent bank runs on illiquid-but-solvent banks if they face liquidity problems due to their inability to borrow from interbank markets.

---

there might be instances in which banks engage in liquidity transformation without engaging in maturity transformation.

20 Financial Services Authority, "The Turner Review: A Regulatory Response to the Global Banking Crisis" (2009), online: Financial Services Authority <http://www.fsa.-gov.uk/pubs/other/turner_review.pdf> [Financial Services Authority]. See also Gary B. Gorton, *Misunderstanding Financial Crises: Why We Don't See Them Coming* (Oxford: Oxford University Press, 2012).

21 Charles P. Kindleberger & Robert Z. Aliber, *Manias, Panics, and Crashes: A History of Financial Crises* (Hoboken, John Wiley & Sons, Inc., 2005) at § 5.

22 Financial Services Authority, *supra* note 20 at 21.

23 These mechanisms are not perfect. See Markus K. Brunnermeier, "Deciphering the 2007-2008 Liquidity and Credit Crunch" (2009) 23 Journal of Economic Perspectives 77 [Brunnermeier] (arguing that, for example, extending credit lines from other banks would undermine the risk profile of the bank that is extending credit. In addition, in times of crisis, liquidity in the interbank market may dry up, which can pose funding risks to the banking system).

24 Alan S. Blinder & Robert F. Wescott, "Reform of the Deposit Insurance: A Report to the FDIC (2001)", online: <https://www.fdic.gov/deposit/insurance/initiative/re-form.html> [Blinder & Wescott]. Indeed, the protection of small depositors is an incidental benefit of deposit insurance schemes. For an opposing view on deposit insurance, see Charles W. Calomiris, "Is Deposit Insurance Necessary? A Historical Perspective" (1990) 50 The Journal of Economic History (arguing that not only is the deposit insurance in its current form unnecessary, but it is also a contributing factor to instability in the banking system).

All these protections are to ensure that core functions of banking entities (i.e., maturity transformation and their role in the payment system) are not impaired due to sudden liquidity shocks.[25]

However, unlike banks, which are allowed to accept deposits, shadow banks mainly rely on credit markets for funding and are prohibited from taking deposits.[26] Accordingly, they also are not provided with a mechanism similar to a deposit insurance scheme that insures their short-term liabilities. Moreover, shadow banks do not enjoy explicit government guarantees, such as access to liquidity back-ups (discount window). The absence of these liquidity-management mechanisms exposes shadow banks to enormous risks of maturity transformation.[27]

Traditionally, maturity transformation was undertaken by the banking sector due to their exclusive powers in taking deposits and lending.[28] However, with the advent of structured investment vehicles (SIVs), investment banks and mutual funds created deposit-like investment opportunities. These investment opportunities, with the prospects of upside gains, were made available by promising on-demand redemption rights and implicit or explicit guarantees to the investors that the capital invested in the fund will not fall below its initial investment value.[29] The risk in a system, which heavily relies on short-term liabilities, is that if a liquidity crisis hits, the financial institutions have to immediately sell long-term assets to meet redemption requests by investors that contribute to systemic liquidity crises.[30] Such maturity mismatches in shadow banks, which caused deleveraging and resulted in fire sales and liquidity spirals, are vastly documented in the recent global financial crisis.[31] Due to the

25 Xavier Freixas *et al.*, "Lender of Last Resort: What Have We Learned Since Bagehot?" (2000) 18:63 Journal of Financial Services Research. See also Xavier Freixas & Bruno M. Parigi, "The Lender of Last Resort of the 21st Century" in Andrew Fenton and Carmen M. Reinhart, eds., *The First Global Financial Crisis of the 21st Century: Part II June-December* (2008) 163. Historically, the LOLR function in the market was played by private financial institutions. An outstanding example of such role-playing occurred during the crisis of 1907 when J. P. Morgan provided liquidity to markets and institutions in the banking panic of that year. See Robert F. Bruner & Sean D. Carr, *The Panic of 1907: Lessons Learned from the Market's Perfect Storm* (Hoboken: John Wiley & Sons, Inc., 2007).

26 Even with all those prohibitions, money market mutual funds (MMMFs) developed products that were similar to demand deposits with prospect of upside gains called Negotiable Order of Withdrawal accounts or NOW accounts.

27 Tobias Adrian & Adam B. Ashcraft, "Shadow Banking: A Review of the Literature", in Garrett Jones, ed., *Banking Crises: Perspectives from the New Palgrave Dictionary* (London, Palgrave Macmillan UK, 2016) 282 at 301-306.

28 Linda Allen, et al., "The Role of Bank Advisors in Mergers and Acquisitions" (2004) 36 Journal of Money, Credit & Banking 197. See also Julie L. Williams & James F. E. Gillespie, "The Business of Banking: Looking to the Future—Part II" (1997) 52 The Business Lawyer 1279.

29 The so-called NOW accounts. See *supra* note 26.

30 Financial Services Authority, *supra* note 20 at 21.

interconnectedness of shadow banks with banks, these individual deleveraging and fire sales in the shadow banking can spread to banks and, ultimately, contribute to financial instability. As one of the major drivers of banking regulation is systemic risk,[32] and given the vulnerability of shadow banks to liquidity shocks, the systemic-risk argument for regulating banks equally applies to regulating shadow banks.

In addition, since traditional banks have already been heavily regulated, there are concerns that lightly regulated shadow banks without those government guarantees might pose greater systemic risks than the regulated traditional banks.[33] These risks include, *inter alia*, the interconnectedness of shadow banks with the traditional banking system and other shadow banks, a lack of transparency and insufficient disclosure, agency problems in the securitization process, regulatory arbitrage, and high levels of leverage in the shadow banking sector.[34]

Likewise, the maturity transformation in the hedge fund industry can be undertaken through hedge funds or hedge fund-like entities' engagement in originating derivative instruments such as mortgage backed securities (MBSs)[35] and collateralized debt obligations (CDOs). Although hedge funds do not often engage in maturity transformation, they may engage in liquidity transformation[36] if they invest in securitized debt instruments and particularly in MBSs.[37] Therefore, some types of hedge funds can be considered as shadow banks. As mentioned above, absent government safety nets, due to engagement of shadow banks in maturity and liquidity transformation, they can be as fragile

[31] Brunnermeier, *supra* note 23. See also Markus K. Brunnermeier & Lasse Heje Pedersen, "Market Liquidity and Funding Liquidity" (2008) 22 The Review of Financial Studies 2201.

[32] Richard J. Herring & Anthony M. Santomero, "What is Optimal Financial Regulation?" in Benton E. Gup, ed., *The new financial architecture: Banking regulation in the twenty-first century* (Westport: Quorum Books, 2000) 51 at 52-54.

[33] It is apt to note that regulation, by itself, does not mean that banks are safer than shadow banks. Empirical evidence suggests that the capital of the banking sector is far lower than that of shadow banks. In other words, shadow banks are, on average, far less leveraged than traditional regulated banks. From this perspective, taking excessive risk by leveraged funds is seen as an unintended consequence of the government guarantees for banks. See generally Anat R. Admati & Martin Hellwig, *The Bankers' New Clothes: What's Wrong with Banking and What to Do about It* (Princeton: Princeton University Press, 2013) [Admati & Hellwig].

[34] See European Repo Council, *supra* note 15.

[35] To see how investments in MBS can be considered part of the shadow banking activities, see Admati & Hellwig, *supra* note 33 at 148-166.

[36] Financial Stability Board, "Shadow Banking: Scoping the Issues, A Background Note of the Financial Stability Board" (2011), online: Financial Stability Board <http://www.fsb.org/wp-content/uploads/r_110412a.pdf> at 3. (According to the FSB, liquidity transformation is "the issuing of liquid liabilities to finance illiquid assets.")

[37] For the distinction between maturity transformation and liquidity transformation, see Admati & Hellwig, *supra* note 33 at 148-166.

as traditional banks.[38] It follows that hedge funds' potential role in credit intermediation can make hedge funds, as well as banking entities that are connected to hedge funds, extremely fragile in case of any shocks to the system. For example, SIVs heavily engaged in maturity transformation also helped traditional banking entities to conceal the risks of off-balance-sheet items.[39] One of the aims of the Volcker Rule is to address the problems originated from the use of the components of shadow banks by banking entities. The Volcker Rule attempts to close the channels of contagion through which the risks of shadow banks might propagate to LCFIs.

(c) Mitigating conflicts of interest

The concerns about serious conflicts of interest in combining commercial and investment banking were an effective driving force behind the introduction of the Volcker Rule, as it was the case for its predecessor, the *Glass-Steagall Act*.[40] Specifically, the *Glass-Steagall Act* was intended to address the conflicts of interest embedded in financing companies by financial intermediaries and those offering securities to investors.[41] Although some scholars cast doubt on this situation as a serious case of conflicts of interest,[42] the main concern was that commercial banks, being the main lenders to companies and having good knowledge of their financial situation, would sell risky and about-to-default securities to unsophisticated investors.[43]

In the context of commercial vs. investment banking, conflicts of interest primarily lie in the different roles of commercial and investment banks. Commercial banking traditionally involves taking deposits and granting loans, while investment banks and securities dealers' functions include, *inter alia*, underwriting, selling, trading, and distributing securities. Therefore, a bank acting as both a customer's agent and a dealer on the same transaction inevitably faces conflicts of interest. For instance, an investment bank within a universal

---

38 Zoltan Pozsar *et al.*, "Shadow Banking, Federal Reserve Bank of New York Staff Reports, no. 458" (2010), online: Federal Reserve Bank of New York <https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr458_July_2010_-version.pdf>.

39 Financial Services Authority, *supra* note 20 at 20.

40 See George J. Benston, *The Separation of Commercial and Investment Banking: the Glass-Steagall Act Revisited and Reconsidered* (Oxford: Oxford University Press, 1990) [Benston] at 43-47.

41 Amar Gande, "Commercial Banks in Investment Banking" in Anjan V. Thakor & Arnoud Boot, eds., *Handbook of Financial Intermediation and Banking* (Burlington: Elsevier Science, 2008) (providing an overview of potential conflicts of interest in the universal banking model and discussing whether they are of concern for regulators).

42 Randall S. Kroszner & Raghuram G. Rajan, "Is the Glass-Steagall Act Justified? A Study of the U.S. Experience with Universal Banking Before 1933" (1994) 84 American Economic Review 810 [Kroszner & Rajan].

43 Luigi Zingales, "The Future of Securities Regulation" (2009) 47 Journal of Accounting Research 391 at 415-416.

banking model that underwrites initial public offerings (IPOs) might ill-advisedly suggest clients and customers (depositors) buy low-quality and less-promising securities.[44] To mitigate this conflict of interest, the *Glass-Steagall Act* prohibited commercial banks from underwriting securities altogether by separating commercial banks from investment banks.[45]

The similarities between the rationales for the enactment of the *Glass-Steagall Act* and the Volcker Rule are striking.[46] One of the impulses driving the *Glass-Steagall Act* was the financial crisis of the 1930s, which triggered sweeping regulatory reforms. The reason that Congress enacted the *Glass-Steagall Act* was that from 1930 to 1933, around 11,000 banks failed.[47] The Congressional hearings on the bill proposing the *Glass-Steagall Act* found the causes of the crash in the practices of the banking entities, which were proprietary in nature, such as underwriting and investment in securities.[48] Although there were no hedge funds at that time, the banks' involvement in activities akin to proprietary trading and their interconnectedness with hedge fund-like investment vehicles, which imposed significant losses on banking institutions and gave rise to systemic risk, acted as a catalyst for the enactment of the *Glass-Steagall Act*.[49]

---

44 One of the main cases of conflicts of interest in banks exists between its different departments or divisions. The problem was that the research departments of investment banks were financed by the profits of the investment-banking units. Such a situation gave rise to conflicts of interest between banks' analysts and their investment-banking division because, in such a system, the banks' analysts might tend to (or be pressured to) recommend securities that its investment banking unit underwrites. In the end, discoveries of such conflicts of interest led to a separation of research and investment banking division into two different subsidiaries, by establishing Chinese walls between research and corporate finance divisions within investment banks. See Shelagh Heffernan, *Modern Banking* (Chichester: John Wiley & Sons, Ltd., 2005) [Heffernan] at 19-23.

45 The *Glass-Steagall Act* also contained exceptions. For example, commercial banks were allowed to underwrite municipal bonds, U.S. government bonds, and engage in private placements.

46 John C. Coates IV, "The Volcker Rule as Structural Law: Implications for Cost-Benefit Analysis and Administrative Law" (2015) 10 Capital Markets Law Journal 447 at 455-458 (noting that, despite similarities, there are major differences between the two regulations).

47 See John R. Walter, "Depression-Era Bank Failures: The Great Contagion or the Great Shakeout?" (2005) 91 Federal Reserve Bank of Richmond Economic Quarterly 39 at 44-46 (providing estimations of the enormity of bank failures during the Great Depression).

48 For an in-depth discussion and criticism of the allegations raised in the Pecora Hearings, see Benston, *supra* note 40 (enumerating and analyzing twelve reasons for the enactment of the *Glass-Steagall Act*, but concluding that most of them do not stand up serious academic scrutiny). See also Charles Calomiris, "The Costs of Rejecting Universal Banking: American Finance in the German Mirror, 1870-1914" in Naomi R. Lamoreux & Daniel M.G. Raff, eds., *Coordination and Information: Historical Perspectives on the Organization of Enterprise* (Chicago: University of Chicago Press, 1995) [Calomiris] at 257.

There were huge controversies about the costs and benefits of the *Glass-Steagall Act* and many commentators questioned its underlying rationale.[50] For example, it was estimated that securities underwritten by the banking entity's affiliates within the universal banks outperformed comparable securities underwritten by independent non-conflicted investment banks. What confirms these findings is that this superior performance was attributable to the lower-rated and highly information-sensitive issues of securities.[51] This finding clearly runs counter to the idea that combining investment and commercial banking can give rise to conflicts of interest.

Based on this finding, Kroszner and Rajan argue that the investor protection argument, which underlies the role of conflicts of interest for separating investment activities from core banking activities, is not justifiable.[52] They further argue that, since the public markets and rating agencies were aware of the potential conflicts of interest, they imposed a 'lemons market' discount on information-sensitive securities underwritten by the affiliates of commercial banks. In response to this discount, the affiliates of banking entities turned away from underwriting information-sensitive securities and started underwriting securities that were less information-sensitive.[53] Their finding confirms the idea that market forces can be effective in limiting the propensity of the affiliates of commercial banks to take advantage of uniformed investors and provide adequate monitoring mechanisms to rein in such potential conflicts of interest. Based on the same line of reasoning, empirical evidence also suggests that universal banks, which combine investment banking with commercial banking, did not exploit such conflicts of interest.[54]

The same concerns about mixing investment banking and commercial banking can equally be a source of concern if a bank commingles commercial banking activities with proprietary trading activities that are of the investment banking nature. The strategies employed in proprietary trading are essentially

---

[49] These allegations were raised in the Pecora committee investigations. See Benston, *supra* note 40 (almost challenging and undermining the underpinnings of all those allegations).

[50] See Jonathan R. Macey, "Special Interest Groups Legislation and the Judicial Function: The Dilemma of Glass-Steagall" (1984) 33 Emory Law Journal 1 [Macey] (arguing that this separation resulted from lobbying by investment banks to keep commercial banks at bay).

[51] Kroszner & Rajan, *supra* note 42.

[52] *Ibid.* at 829-830.

[53] *Ibid.* Though counterintuitive, it seems that market-discipline-inspired self-regulation originated from reputational concerns in repeated commercial transactions (versus enforced self-regulation) and that private law rules addressing agency problems were, to a great extent, effective in regulating the conflicts of interest in commercial banking. *Ibid.* See also Alan D. Morrison & William Wilhelm Jr., *Investment Banking: Institutions, Politics, and Law* (Oxford: Oxford University Press, 2007) [Morrison & Wilhelm] at 121-154.

[54] Manju Puri, "Commercial Banks in Investment Banking Conflict of Interest or Certification Role?" (1996) 40 Journal of Financial Economics 373.

different from the core banking functions (maturity transformation). However, these strategies are necessary for effective undertaking of risk-mitigating strategies in the banking business, such as hedging and market-making activities.[55] Despite their useful role in the banking business, proprietary-trading strategies can be a source of conflicts of interest between clients of a bank and its proprietary trading desk.[56] The Group of Thirty's report confirms that the risks, market volatilities, and conflicts of interest originating from banking entities' proprietary trading and their investment in hedge funds and private equity funds are difficult to measure and regulate.[57] There are at least three different instances in which combining proprietary trading with commercial banking can result in conflicts of interest that give rise to investor protection concerns.

First, if a banking entity incurs losses in proprietary trading, it might tend to cover those losses at the expense of clients' interests. Second, there are embedded conflicts of interest in combining commercial banking and investment banking activities that include proprietary trading. Commercial banking (i.e., taking deposits and granting loans) provides banks with access to substantial amounts of nonpublic information about the financial conditions of the borrowing institution. This is especially significant in commercial banks that engage in relationship banking. If commercial and investment banking activities comingle, as is the case in universal banks, those banks can trade on the non-public information acquired through the course of the commercial banking business. The proprietary trading undertaken by the proprietary trading desks of banks are well positioned to engage in opportunistic behavior and exploit non-public information at the expense of customers of the bank.

The third concern about conflicts of interest lies within the investment banking business itself. For example, investment banking units of banking entities offer advisory services to corporate customers on financing, mergers and acquisitions, and many other different issues about firms. Such a role in the financial markets gives them privileged access to substantial amounts of non-public information.[58] Indeed, if the Chinese walls between advising units of universal banks and their trading desks are penetrable, the information leaked from the advisory and lending units of banks to trading desks could be used by the traders of the bank to profit from such non-public information potentially at the expense of customers.

Two residual concerns about proprietary trading and the activities related to hedge funds remain. First, such activities involve complex financial products and

---

[55] Indeed, without these strategies, a commercial bank might not be able to effectively manage its risks.

[56] See Benston, *supra* note 40 at 205-206 (providing a thorough overview of these conflicts of interest).

[57] The Group of Thirty, Working Group on Financial Reform, *supra* note 10.

[58] Ingo Walter, "Conflicts of Interest and Market Discipline Among Financial Service Firms" (2004) 22 European Management Journal 361.

transactions, such as highly illiquid and hard-to-value structured products.[59] This inherent complexity further increases the information asymmetry between market participants, mainly between originators and investors of the structured products. Increased information asymmetry breeds opportunistic behavior and amplifies the concerns for aggravated conflicts of interest. The second residual concern is the concern about transparency, which paved the way for the enactment of the Volcker Rule. The Group of Thirty's report further suggested that the complexity of the proprietary trading and the need for confidentiality in such operations limited the transparency of markets for both investors and creditors.[60] Generally, more transparent markets are more stable than opaque ones. Opaque markets are particularly prone to shocks and instability caused by illiquidity, which itself originates from uncertainty about the market participants' counterparty credit risks.[61] Because market participants are uncertain about counterparty risks, they are less willing to lend to each other in times of distress. The behavior of individual banks can easily result in a credit crunch and liquidity shocks. Moreover, the report of the Group of Thirty alludes to circumstances in which the board of directors of banking entities within which proprietary trading and other banking activities are simultaneously conducted may not be able to understand and control their diverse and complex mix of activities.[62] Although the issue of conflicts of interest has already been addressed by different laws and regulations,[63] and banks have erected walls between

---

[59] Financial Stability Oversight Council, *Study & Recommendations on Prohibitions on Proprietary Trading & Certain Relationships with Hedge Funds and Private Equity Funds (2011)*, online: U.S. Department of Treasury <https://www.treasury.gov/initiatives/fsoc/studies-reports/Documents/Volcker%20sec%20%20619%20study%20final%201%2018%2011%20rg.pdf> at 48-50 [Financial Stability Oversight Council].

[60] The Group of Thirty, Working Group on Financial Reform, *supra* note 10.

[61] Bengt Holmström & Jean Tirole, "Private and Public Supply of Liquidity" (1998) 106 Journal of Political Economy 1.

[62] In addition, the report raised concerns about firms engaged in proprietary trading that were supervised by the government and, thus, protected from the full force of market discipline. It suggested that such a situation gives rise to unfair competition with so-called 'free-standing' institutions. The report concludes that large SIFIs should be restricted when engaging in proprietary trading, which poses high risks and serious conflicts of interest. Furthermore, the report recommended that banking institutions be prohibited from sponsoring hedge funds and private equity funds and that strict capital and liquidity requirements should be imposed on proprietary trading. In addition, it recommended that the firms securitizing debt instruments should be required to retain a meaningful part of the credit risk on the bank's balance sheet, the so-called 'skin in the game' requirement. In other words, it suggested that banks should not comingle their own funds in hedge funds in which their clients invest. See The Group of Thirty, Working Group on Financial Reform, *supra* note 10 at 27-28.

[63] In the US, three categories of laws impose conflicts of interest restrictions on banking entities in their dealings with their customers. First, the fiduciaries' duty of loyalty under State laws; secondly, the investment advisers' and commodity trading advisers' duty of loyalty under federal and state securities and commodities laws, and the duty of loyalty

'customer-serving activities' and 'proprietary trading desks' to prevent information flow, the Volcker Rule attempts to close any remaining loopholes in the banking entities' involvement in proprietary trading and hedge fund and private equity fund investment.[64]

(d) Addressing moral hazard by limiting cross-subsidization

Moral hazard is a ubiquitous feature of financial regulation, specifically where such regulation is intended to cope with problems of financial stability.[65] The government's attempt to preserve financial stability often requires the provision of some sort of safety net for SIFIs.[66] However, this safety net will give financial institutions the impression that the government will bear the consequences of their risk taking. Therefore, one of the unintended consequences of having a safety net in place is that it will encourage opportunistic behavior by regulated entities.[67]

The moral hazard problem stemming from an over-extended government safety net, in turn, encourages excessive risk taking by too-big-to-fail and too-interconnected-to-fail banks.[68] This problem may not be limited to the banks themselves; it can further be transmitted to other less-regulated parts of the financial system when banks transact with hedge funds and private equity funds.[69] For example, for a long time, central bankers were concerned that banks that take risks in the derivatives markets essentially exploit their unique access to deposit insurance and discounted Fed funds.[70] Needless to say, a bank's investment in a private fund amounts to similar exploitations to those that exist in the derivatives markets.

---

attached to benefit plans under the *Employee Retirement Income Security Act* [ERISA]. And finally, there is a prohibition under the securities laws on obtaining an advantage by using nonpublic information about a customer or an issuer, such as laws prohibiting insider trading. See Financial Stability Oversight Council, *supra* note 59 at 48-50.

64 *Ibid.*

65 William A. Allen & Geoffrey Wood, "Defining and Achieving Financial Stability" (2006) 2 Journal of Financial Stability 161.

66 Nadezhda Malysheva & John R. Walter, "How Large Has the Federal Financial Safety Net Become?" (2010) 96 Economic Quarterly - Federal Reserve Bank of Richmond 273 [Malysheva & Walter] at 274-275.

67 Admati & Hellwig, *supra* note 33.

68 See Anthony Saunders, "Banking and Commerce: An Overview of the Public Policy Issues" (1994) 18 Journal of Banking & Finance 231 (arguing that the effects of such an overextended government safety net would be transmitted beyond the financial sector).

69 Viral V. Acharya *et al.* "International Alignment of Financial Sector Regulation" in Viral V. Acharya & Matthew Richardson, eds., *Restoring Financial Stability: How to Repair a Failed System* (Hoboken: Wiley & Sons, Inc., 2009) 365 [Acharya *et al.*] at 366-367.

70 Lynn A. Stout, "Betting the Bank: How Derivatives Trading under Conditions of Uncertainty can Increase Risks and Erode Returns in Financial Markets" (1995) 21 Journal of Corporation Law 57.

One of the main objectives of the Volcker Rule is to prevent the flow of government subsidies to private funds.[71] As mentioned above, because of their role in maturity transformation, depository institutions suffer from inherent fragility, which has caused recurrent crises throughout the history of banking. To prevent such crises, governments have provided safety nets by creating a web of government guarantees for banking entities. In the US, there are both explicit and implicit government guarantees for banks. Explicit guarantees include deposit insurance schemes and privileged access to the LOLR facilities of the Federal Reserve, such as its discount window in times of illiquidity for individual banks or for the banking system as a whole. In addition, implicit guarantees for banks are mostly provided in the form of bailouts for too-big-to-fail or too-interconnected-to-fail banks.[72]

Although a publicly funded deposit insurance scheme should neither subsidize nor tax banking entities,[73] theoretical and empirical studies suggest that there are substantial subsidies within the current schemes of government explicit and implicit guarantees offered to banks.[74] The potential flow of taxpayer-subsidized funds to private funds in the form of implicit guarantees or provision of emergency liquidity by their parent banks can incentivize private funds to engage in opportunistic behavior (i.e., taking excessive risks at the expense of their parent banks). Their parent banks, in turn, will shift some of their losses to the taxpayers rather than incurring such losses themselves.[75] Therefore, regulators need to take steps to prevent the transmission of taxpayer-subsidized funds to private unregulated funds.

Legislators were well aware of this moral hazard problem when they first introduced the *Glass-Steagall Act*.[76] Indeed, the simultaneous introduction of the Federal Deposit Insurance Corporation (FDIC) and the *Glass-Steagall Act* included in the same bill (the *Banking Act* of 1933) was not a coincidence. Initiated by Senator Carter Glass and Congressman Henry Steagall, the *Glass-Steagall Act* was intended to prevent the risks of speculation by banks at the

---

71 Financial Stability Oversight Council, *supra* note 59 at 14.

72 Charles W. Calomiris, "Building an Incentive-Compatible Safety Net" (1999) 23 Journal of Banking & Finance 1499.

73 See Blinder & Wescott, *supra* note 24.

74 Bryan T. Kelly *et al.*, "Too-Systemic-To-Fail: What Option Markets Imply About Sector-wide Government Guarantees" NBER Working Paper Series, No. 17149 (2011), online: <http://faculty.chicagobooth.edu/workshops/finance/pdf/toosystemictofail-whatoptionmarkets.pdf>.

75 Jason Hsu & Max Moroz, "Shadow Banks and the Financial Crisis of 2007-2008" in Greg N. Gregoriou, ed., *The Banking Crisis Handbook* 48-50, (Boca Raton: Taylor and Francis Group, LLC, 2010) 39.

76 See Charles W. Calomiris & Eugene N. White, "The Origins of Federal Deposit Insurance" in Claudia Goldin & Gary D. Libecap, eds., *The Regulated Economy: A Historical Approach to Political Economy* (Chicago: University of Chicago Press, 1994) 145 at 146 [Calomiris & White] (highlighting that the Roosevelt Administration initially opposed federal deposit insurance based on the same reasoning).

expense of the proposed FDIC. In so doing, the Act restricted commercial banking activities to commercial lending and trading in less-risky assets, such as government bonds, while other activities were placed in the investment banking framework.[77] Passed in 1933, the Act recognized that, with the introduction of the deposit insurance corporation and requiring member banks to be insured by the FDIC, some limits needed to be set on their activities. Hence, to prevent opportunistic behaviour, such as excessive risk taking at the expense of the FDIC, the Act prohibited federally insured banks from engaging in investment banking and using deposits for trading on their own accounts. The Act was an acknowledgement that most practical way to do this was to separate commercial banking from investment banking.[78]

The moral hazard problem also exists when private funds are subject to indirect regulation by their prime brokers.[79] For instance, banks' and elite prime brokers'[80] reliance on bailouts affects their counterparty credit risk management and induces them to take a suboptimal level of care in dealing with hedge funds.[81] In addition, some prime brokers have taken on the role of hedge fund 'hotels', meaning that hedge funds are embedded within these institutions. Such an institutional setting can result in compromised risk-management incentives in the relationship between hedge funds and prime brokers. Moreover, this arrangement can cause reputational damage to the prime broker if a hedge fund operating within the prime brokerage firm fails. For example, prior to the recent financial crisis, the collapse of two of Bear Stearns' hedge funds in the spring of 2007 imposed losses on their systemically important parent company.[82] In that case, the collapse of hedge funds did not impose substantial credit risks

---

77 Acharya & Richardson, *supra* note 4 at 5. See also Macey, *supra* note 50 (arguing that the true impetus behind the *Glass-Steagall Act* was lobbying by investment banks, which resulted in an Act that protected investment banks from competition from commercial banks).

78 Sections 16 and 21 of the *Glass-Steagall Act*.

79 A direct or entity regulation involves regulatory measures focusing immediately on the regulation of the target industry as a "discrete activity or as part of the broader, regulated investment services universe." In contrast to direct regulation, which is applied directly to the hedge fund entity itself or to the activities performed directly by hedge funds, indirect regulation includes "market discipline-inspired regulatory measures targeting the creditors and counterparties of hedge funds (mainly, but not exclusively, their prime brokers and securities brokers)." See Phoebus Athanassiou, *Hedge Fund Regulation in the European Union: Current Trends and Future Prospects* (Alphen aan den Rijn: Kluwer Law International, 2009) at 227. See also Nabilou & Pacces, *supra* note 8 (arguing that indirect regulation is the preferred approach for regulating hedge funds).

80 Prime brokers, as part of major investment banks, are broker-dealers that clear and finance customer trades executed by one or more other broker-dealers, known as executing brokers. See President's Working Group, Hedge Funds, Leverage, and the Lessons of Long-Term Capital Management B-4 (1999), online: <http://www.cftc.gov/tm/tmhedgefundreport.htm>.

81 Wulf A. Kaal, "Hedge Fund Regulation via Basel III" (2011) 44 Vanderbilt Journal of Transnational Law 389 at 389.

on Bear Stearns. However, Bear Stearns bailed them out due to reputational concerns that the failure of such entities could raise concerns about the safety and soundness of Bear Stearns itself.[83] Such a bailout highlighted the concerns about the indirect subsidization of hedge funds by taxpayers through the parent organization's access to the Federal Reserve discount window and an implicit guarantee of a bailout of a too-big-to-fail parent company.

Such an opportunity for excessive risk taking stemming from indirect subsidies means that hedge fund managers do not bear the entire costs and consequences of their risk taking.[84] To address that problem, the *Dodd-Frank Act* limits banking entities' investment in and sponsorship of hedge funds by the introduction of the Volcker Rule. Indeed, the Volcker Rule limits the banks' ability to invest the taxpayer-subsidized capital in hedge funds. Under this Rule, it will be very unlikely that subsidized banks would rescue hedge funds.[85]

Even prior to the enactment of the Volcker Rule, mechanisms devised to limit inappropriate transfer of government subsidies to unregulated entities were, and still are, in place. These mechanisms include sections 23A and 23B of the *Federal Reserve Act*.[86] The provisions of the *Federal Reserve Act* on 'covered transactions' were criticized on the grounds that the banking entity would have nothing to gain from a below-market transfer of credit to a troubled affiliate.[87] However, the bailouts of hedge funds by their parent companies (banking entities) in the recent global financial crisis proved otherwise. For example, Bear Stearns, Goldman Sachs, and Citigroup each bailed out their internal hedge funds just before their collapse.[88] In the case of the systemically important Bear Stearns, those bailouts contributed to its ultimate collapse.[89]

To prevent the transfer of government subsidies to speculative proprietary trading, the Volcker Rule generally prohibits proprietary trading by banks and their investment in private funds that are completely detached from their customer-serving activities.[90] In addition, the Rule prohibits banks from

---

82 Darrell Duffie, "The Failure Mechanics of Dealer Banks" (2010) 24 The Journal of Economic Perspectives 51 [Duffie] at 59.

83 For a detailed overview of how the failure of the Bear Stearns hedge funds affected the firm, see William D Cohan, *House of Cards: A Tale of Hubris and Wretched Excess on Wall Street* (New York: First Anchor Books Edition, 2010) [Cohan].

84 Dixon Lloyd *et al.*, "Hedge Funds and Systemic Risk" (2012) online: Rand Corporation <http://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND_MG1236.pdf> at 43, 65.

85 *Ibid.*

86 Section 23A 12 U.S.C. § 1851(f), which will be discussed below in section (c), entitled "Prohibitions on 'covered transactions'".

87 Daniel R. Fischel *et al.*, "The Regulation of Banks and Bank Holding Companies" (1987) 73 Virginia Law Review 301 at 326-327.

88 Duffie, *supra* note 82 at 59.

89 Cohan, *supra* note 83.

90 Financial Stability Oversight Council, *supra* note 59 at 56.

guaranteeing obligations or performance of hedge funds and private equity funds.[91] The following section of this article studies the provisions of the Volcker Rule in detail and the third section will evaluate the success of the Volcker Rule in achieving its objectives.

2. THE VOLCKER RULE: MAIN PROHIBITIONS

The prohibitions of the Volcker Rule on proprietary trading and sponsorship of private funds is reminiscent of the restrictions first introduced by the *Glass-Steagall Act*, which restricted commercial banks from engaging in high-risk and speculative investment banking activities.[92] Commercial banking basically involves taking deposits and lending. Although the sources of funding and the methods of lending by commercial banks are varied, such functions remain the core activities of commercial banks.[93] On the contrary, investment banking involves activities, such as: underwriting (assisting firms in raising capital); advisory services; mergers, acquisitions, and loan restructuring; trading and brokerage services; and asset management services, including both traditional and alternative asset management.[94]

The Glass-Steagall wall standing between commercial and investment banking activities proved to be the financial Maginot line rather than a Chinese wall. It turned out to be easily penetrable, even before being torn down by the *Financial Modernization Act* of 1999 (also known as the *Gramm-Leach-Bliley Act* (GLB)).[95] In 1989, through Section 20 subsidiaries, commercial banks were allowed to underwrite corporate securities in a limited manner. The enactment of the GLB, which started an era of reregulation of the financial industry within which commercial banks expanded their activities into securities underwriting, drove the final nail into the coffin of the *Glass-Steagall Act*. Indeed, at the end of the 20th century, investment banks could operate as they did at the beginning of the century.[96] With the fall of the Glass-Steagall wall, the

---

91 12 U.S.C. § 1851(d)(1)(G)(v).

92 Calomiris, *supra* note 48.

93 Giuliano Iannotta, *Investment Banking: A Guide to Underwriting and Advisory Services* (Heidelberg: Springer-Verlag Berlin Heidelberg, 2010) at 1-2.

94 *Ibid.*

95 In the last decades of the 19th century, commercial banks were increasingly entangled with investment banking activities, which gave rise to concerns about conflicts of interest within the banking industry. The first attempt to separate investment banking from commercial banking was made in 1902 by a ruling by the Comptroller of the Currency according to which National Banks were prohibited from engaging in the investment banking business. However, in 1903, the First National Bank of Chicago circumvented this ruling by creating its securities affiliate. With the approval of the Comptroller, this method of avoiding the ruling soon became widespread and commercial banks effectively performed investment banking business through their securities affiliates. See Morrison & Wilhelm Jr, *supra* note 53 at 196-197.

96 *Ibid.* at viii.

universal banking era began. Under the universal banking system, the bank, as one legal entity, offered a full range of banking and non-banking financial services.[97] The services offered by universal banks include: financial intermediation, providing payment facilities, liquidity provision (market making), trading in financial instruments (including proprietary trading), acting as brokers, offering advisory services, investment management, and insurance services.[98] However, as suggested earlier, in the aftermath of the global financial crisis, the logic of universal banking was questioned and proposals were adopted that were reminiscent of the Glass-Steagall provisions.

This section studies the current regulatory instruments and innovations of the Volcker Rule. In its current form, the Volcker Rule is viewed as a two-pronged provision. It introduces restrictions on proprietary trading, as well as prohibitions on investments in and sponsorship of private funds by banking entities. Then, this article studies the Rule's prohibition of proprietary trading. Thereafter, it analyzes the Volcker Rule' prohibitions on investment in and sponsorship of hedge funds and private equity funds by banking entities in light of its stated objectives as well as theoretical and empirical findings.

(a) Prohibitions on proprietary trading

Proprietary trading offers attractive opportunities for banks in terms of potential trading profits. It is reported that in 2004, 75% of the $6.7 billion of Goldman's earnings before tax came from trading and investments.[99] However, the losses from proprietary trading played a role in putting LCFIs, such as Lehman Brothers, Merrill Lynch, Morgan Stanley, and Citigroup, at risk prior to the financial crisis.[100] In addition, mixing risky security holdings with economically important financial intermediation within banks was perceived as one of the major causes of the recent financial crisis.[101]

---

97 Heffernan, *supra* note 44 at 19.

98 *Ibid.* One of the effects of the gradual erosion and final repeal of the *Glass-Steagall Act* was the collapse of the underwriting spreads for both equity and debt underwritings. This was mostly attributed to the fact that the repeal of the *Glass-Steagall Act* allowed commercial banks to enter into the securities-underwriting business and made underwriting markets more competitive, which led to a reduction in underwriting spreads. Since debt offerings are less information sensitive, they responded more rapidly to the forces of competition emanating from the new entrants than equity offerings with higher information sensitivity. See Morrison & Wilhelm Jr, *supra* note 53 at 24-25.

99 Justin Fox, "Goldman: We Run Wall Street" *CNNMoney* (16 May 2005).

100 See R. Rex Chatterjee, "Dictionaries Fail: The Volcker Rule's Reliance on Definitions Renders It Ineffective and a New Solution Is Needed To Adequately Regulate Proprietary Trading" (2011) 8 Brigham Young University International Law & Management Review 33 [Chatterjee] at 47-48. See also United States Government Accountability Office, "Proprietary Trading: Regulators Will Need More Comprehensive Information to Fully Monitor Compliance with New Restrictions When Implemented" (2011), online: <http://www.gao.gov/assets/330/321006.pdf>.

101 Acharya & Richardson, *supra* note 4 at 7-8.

The proprietary trading provisions of the Volcker Rule prohibit a banking entity[102] from engaging in trading activities as a principal to profit from the near-term price movements.[103] A 'banking entity' is defined as "any insured depository institution,[104] any company that controls an insured depository institution, or that is treated as a bank holding company for purposes of section 8 of the *International Banking Act* of 1978, and any affiliate or subsidiary[105] of any such entity."[106]

The term 'proprietary trading' when used with respect to a banking entity or a Systemically Important Non-Bank Financial Company (SINBFC)[107] means "engaging as a principal for the trading account[108] of [a] banking entity or [a SINBFC] in any transaction to purchase or sell, or otherwise acquire or dispose of, any security, any derivative, any contract of sale of a commodity for future delivery, any option on any such security, derivative, or contract, or any other

---

102 12 U.S.C. § 1851(h)(1).

103 12 U.S.C. § 1851(a) and (h)(4).

104 An insured depository institution is defined in section 3 of the *Federal Deposit Insurance Act* (12 U.S.C. § 1813).

105 Under sections 2(d) and 2(k) of the Bank Holding Company Act, the terms "subsidiary" and "affiliate" are defined to include "any company that a bank holding company or other company controls."

106 The definition of a "banking entity" in the Volcker Rule includes affiliates and subsidiaries of a banking entity. Such a definition creates a circular definition that subjects all advised funds of the banking entities, which are normally considered affiliates of the bank, to the restrictions of the Volcker Rule. However, setting up an advised fund is an explicitly permitted activity for banks. The potential inclusion of hedge funds and private equity funds in the banking definition may have several unintended consequences. Therefore, there is a need to exclude hedge funds and private equity funds from the definition of a 'banking entity'. See Financial Stability Oversight Council, *supra* note 59 at 68-69.

107 The *Dodd-Frank Act* grants authority to the FSOC to determine whether a non-bank financial company (which, among other things, includes hedge funds) is to be supervised by the Federal Reserve (the Fed) and subject to the prudential standards. Such a determination must be made on a non-delegable basis and by a vote of not fewer than two-thirds of the voting members, including the affirmative vote of the Chairperson of the FSOC. If the FSOC determines that the "material financial distress at the U.S. non-bank financial company, or the nature, scope, size, scale, concentration, interconnectedness, or mix of the activities of the U.S. non-bank financial company, could pose a threat to the financial stability of the United States", it must subject the company to prudential supervision by the Fed. See 12 U.S.C. § 5323 (a)(1). See also 12 C.F.R. § 1310.10.

108 The statute defines a 'trading account' as

> any account used for acquiring or taking positions in the securities and instruments described in [the definition of proprietary trading] principally for the purpose of selling in the near term (or otherwise with the intent to resell in order to profit from short-term price movements), and any such other accounts as the appropriate Federal banking agencies, the [Securities and Exchange Commission (SEC)], and the [Commodity Futures Trading Commission (CFTC)] may, by rule . . . determine.

12 U.S.C. § 1851(h)(6).

security or financial instrument that the appropriate Federal banking agencies, the [SEC], and the [CFTC] may . . . determine."[109]

Since one of the core functions of a banking entity is maturity transformation, banks have special cost-advantages in servicing loans to households, small businesses, and other industrial sectors that cannot be easily replicated outside the banking sector. In other words, the bank loans are not substitutable.[110] Meanwhile, other financial institutions, such as hedge funds, can easily undertake proprietary trading. Compared to banks, those financial institutions have lower leverage and do not have access to government safety nets. Therefore, the Volcker Rule's prohibitions on proprietary trading can be justified on the grounds that non-core banking activities can be undertaken in less-systemically-important parts of the financial system.[111]

(i) Proprietary trading exceptions (Permitted activities)

Aside from the general ban on proprietary trading, the Volcker Rule accommodates certain exceptions as 'permitted activities'.[112] The permitted activities mostly involve banking activities perceived to be ultimately beneficial to the broader economy and necessary for maintaining the safety and soundness of banking institutions.[113] These permitted activities under the Volcker Rule include market-making related activities, risk-mitigating hedging, underwriting, and transactions on behalf of customers.[114]

The main problem with these exceptions is distinguishing prohibited activities from permitted activities. Although the 'bright line' proprietary trading desks can be easily identified, under currently established banking practices, significant proprietary trading activities can take place under the guise of statutorily permitted activities.[115] Therefore, effectively distinguishing prohibited activities from permitted activities can be at least as important as establishing rules and supervisory frameworks aimed to prohibit proprietary trading by banking entities across the board.

---

[109] 12 U.S.C. § 1851(h)(4).

[110] Eugene F. Fama, "What's Different about Banks?" (1985) 15 Journal of Monetary Economics 29.

[111] Acharya & Richardson, *supra* note 4 at 15.

[112] 12 U.S.C. § 1851(d)(1).

[113] Financial Stability Oversight Council, *supra* note 59 at 16-17.

[114] Further exemptions include transacting in government securities, certain insurance activities, investments in small business investment companies, public welfare investments, certain qualified rehabilitation expenditures under federal or state tax laws, certain offshore activities, and other activities that Agencies determine would promote and protect the safety and soundness of banking entities and U.S. financial stability. See 12 U.S.C. § 1851(d)(1). However, given the systemic importance and social value of the market-making, hedging, underwriting and transaction on behalf of customers, this paper only studies the impact of the Volcker Rule on such activities.

[115] Financial Stability Oversight Council, *supra* note 59 at 4.

The problem of distinguishing proprietary trading from permitted activities is particularly acute in the cases of market making, hedging, underwriting, and other transactions on behalf of customers. All these activities share similar features with proprietary trading.[116] In addition, the features of permitted activities vary in different markets or asset classes, which pose an additional challenge in making a distinction between the prohibited and permitted activities. For example, the features of permitted activities in a liquid equity securities market may significantly differ from the features of permitted activities in an illiquid over-the-counter derivatives market.[117]

Another challenge is that, as an unintended consequence, on the one hand, broad restrictions on proprietary trading may deter permitted beneficial activities such as market making, hedging, and underwriting. On the other hand, loosely defined restrictions can help banks circumvent those restrictions and engage in prohibited proprietary trading activities.[118] This section studies four items from among the permitted activities because of their potential impact on raising funds from the public, providing liquidity in the markets, internal risk management, future banking business models, and their broader systemic implications. These four items are: underwriting, market making, risk-mitigating hedging, and other transactions on behalf of customers.

(1) Underwriting

Investment banks play a crucial role in mitigating information problems in financial markets.[119] The crux of that role is mitigating information asymmetry between issuers of securities and investors in those securities in initial public offerings (IPOs).[120] The extent of information asymmetry between issuers and investors is such that it may discourage investors from investing in securities altogether.[121] To mitigate this information asymmetry, investment banks put their own reputation on the line and signal to investors that the securities being offered are of acceptable quality. The medium through which this function is

---

[116] Chatterjee, *supra* note 100 at 52-55.

[117] Financial Stability Oversight Council, *supra* note 59 at 18.

[118] *Ibid.*

[119] For a seminal work on this, see Hayne E. Leland & David H. Pyle, "Informational Asymmetries, Financial Structure, and Financial Intermediation" (1977) 32 The Journal of Finance 371.

[120] Hafiz Hoque, "Role of Asymmetric Information and Moral Hazard on IPO Underpricing and Lockup" (2014) 30 Journal of International Financial Markets, Institutions and Money 81.

[121] This is akin to the 'lemons problem' implying there is a significant likelihood of market failure due to information problems. Where the lemons problem exists, bad quality drives out good quality and, in the end, the market for good quality products as well as bad ones collapses. See George A. Akerlof, "The Market for "Lemons": Quality Uncertainty and the Market Mechanism" (1970) 84 The Quarterly Journal of Economics 488.

performed is 'underwriting', which is essential to facilitating equity and debt issuance to raise capital.[122]

However, the downside for investment banks is that underwriting basically requires investment banks to assume principal risks, because underwriting, in most cases, involves taking on the financial risk that the public offering might not sell to investors.[123] The most common form of underwriting is known as 'firm commitment underwriting'. In this type of underwriting, an underwriter (or a syndicate of underwriters) makes a commitment, in advance, to purchase a defined number of securities issued by the company if they are not fully sold in the public offering. Under such circumstances, underwriting firms themselves sometimes intervene in the market in order to support the offered securities, an intervention called stabilization.[124] Such intervention, by purchasing the securities, to support them can hardly be distinguished from proprietary trading.[125]

(2) Market Making

Market making is another beneficial activity that is a permitted activity under the Volcker Rule. Section 619 explicitly puts 'market making-related' activities under the rubric of permitted activities, provided that they are "designed not to exceed the reasonably expected near term [*sic*] demands of clients, customers or counterparties."[126]

Market making, akin to underwriting, requires taking principal risks. However, the exposure to the risk while performing market making varies widely. In 'agency' or 'riskless principal' transactions, market making involves either the market maker matching a buyer and a seller who afterwards transact together, or securing commitments from both sides of the transaction, then buying the financial instrument from the seller, and then selling it to the buyer. This type of market making involves less risk and does not give rise to opportunities for impermissible proprietary trading.[127] In contrast, market making may involve 'principal transactions' in which market makers have to commit capital to complete transactions. In principal transactions, in the absence of a buyer or seller, the market maker assumes the role of a counterparty, which requires a capital commitment and holding an inventory to provide liquidity to the markets.[128] Such market-making activities are essential to liquidity and well-

---

[122] James R Booth & Richard L Smith, "Capital Raising, Underwriting and The Certification Hypothesis" (1986) 15 Journal of Financial Economics 261.

[123] Resort to stabilization mainly occurs in cases of firm commitment underwriting. Otherwise, underwriting risks are shifted to the issuing company.

[124] See Reena Aggarwal, "Stabilization Activities by Underwriters after Initial Public Offerings", (2000) 55 The Journal of Finance 1075.

[125] Financial Stability Oversight Council, *supra* note 59 at 21-22.

[126] 12 U.S.C. § 1851(d)(1)(B). The same requirement applies to underwriting.

[127] Anne-Marie Anderson & Edward A. Dyl, "Market Structure and Trading Volume" (2005), 28 Journal of Financial Research 115 at 118.

functioning financial markets, particularly in markets trading illiquid securities. To mitigate the risks of such activities, the market maker may resort to dynamic hedging practices.[129] Therefore, current practices in the market-making business can be employed in a way that has the same effects as proprietary trading does.[130]

The inventory of securities held by a market maker to provide liquidity to the markets can be built to engage in prohibited proprietary trading. Accordingly, one of the major challenges is that proprietary trading might be concealed under the guise of market-making operations.[131] Therefore, one of the difficulties regulators face in implementing the Volcker Rule is determining inventory levels that are appropriate for providing liquidity to the markets and facilitating client-driven transactions and distinguishing them from prohibited proprietary transactions.[132]

Therefore, the Volcker Rule's restrictions on proprietary trading and the difficulty in distinguishing proprietary trading from market making activities might, in practice, result in restrictions on banks' market-making activities, thereby reducing liquidity in the secondary markets[133] and an exodus of market-making activities to non-bank sectors, which can lead to increased systemic risk.[134] Nevertheless, even if the prohibitions of the Volcker Rule result in unintended restrictions on banking entities' market-making activities, it cannot be viewed as just a negative consequence of the Volcker Rule. Some commentators argue for more dispersed and diversified market-making practices and institutions in financial markets,[135] because liquidity becomes most relevant in times of financial distress when large financial institutions and dealers, who primarily engage in market-making activities, are not able to offer market-making services. Therefore, it seems that the Volcker Rule can help diversify the range of institutions that provide market-making services and, hence, indirectly contribute to financial stability through laying the groundwork for more robust liquidity-provision mechanisms in financial markets.[136]

---

[128] Jennifer L. Juergens & Laura Lindsey, "Getting out Early: An Analysis of Market Making Activity at the Recommending Analyst's Firm" (2009), 64 The Journal of Finance 2327.

[129] Vishal Gaur & Sridhar Seshadri, "Hedging Inventory Risk Through Market Instruments" (2005), 7 Manufacturing & Service Operation Management 103 [Gaur & Seshadri].

[130] Financial Stability Oversight Council, *supra* note 59 at 18-19.

[131] *Ibid.*

[132] *Ibid.*

[133] Anjan Thakor, "The Economic Consequences of the Volcker Rule" (Summer 2012), U.S. Chamber of Commercie's Center for Capital Market Competitiveness 1 [Thakor].

[134] Darrell Duffie, "Market making under the proposed Volcker rule", (2012) Rock Center for Corporate Governance at Stanford University Working Paper No. 106 1, at 2222.

[135] Acharya & Richardson, *supra* note 4 at 17.

[136] *Ibid.*

(3) Risk-mitigating hedging

Hedging is basically a risk-mitigating activity and a tool for risk management. Therefore, it will be self-defeating for the Volcker Rule to undermine the banking institutions' ability to engage in hedging activities. To avoid such an outcome, the Volcker Rule accommodates an exception for risk-mitigating hedging from its prohibition on proprietary trading activities.[137]

As stated above, market-making activities of investment banks often involve building an inventory that requires holding positions in order to provide liquidity to markets. However, holding such positions may expose the bank to outsized market risks.[138] To address this problem, investment banks engage in risk-management techniques, which help reduce their exposure to potential market volatilities. Employing these techniques affects the banks' temporary positions held in their inventory for market-making purposes. Ideally, the Volcker Rule would not impede a banking entity's ability to engage in 'risk-mitigating hedging' while simultaneously preventing it from engaging in prohibited proprietary trading. However, since strategies employed by a banking entity to engage in risk-mitigating hedging can be very similar to proprietary trading activities, distinguishing such permitted activities from prohibited proprietary trading activities presents another challenge to implementing the Volcker Rule.[139]

In addition, hedging activities involve employing derivative instruments, which may affect regulators' ability to identify the true purpose of a transaction.[140] If positions created to hedge do not correlate with the assets in the inventory, or if a banking entity seeks to acquire an independent return by employing hedging techniques, it can be assumed that these techniques are, effectively, used to circumvent the prohibitions of the Volcker Rule. In order to identify permitted risk-mitigating hedging activities from prohibited proprietary trading activities, the hedging strategy of the banking entity should be clearly defined and "directly related to an underlying set of fundamental risk factors to which the entity is exposed".[141]

Based on the nature of the risk and the amount of the exposure of financial institutions, there are different methods of hedging financial risks. For example, several market-making desks of a banking entity, which are exposed to similar risk factors, may conduct their risk management on a portfolio basis, helping them to better hedge the true exposures of the banking entity. However, linking such a hedging strategy at the portfolio level to banking entities' trading

---

[137] 12 U.S.C. § 1851(d)(1).

[138] Gaur & Seshadri, *supra* note 129.

[139] René M. Stulz, "Should We Fear Derivatives?"(2004), 18 The Journal of Economic Perspectives 173 at 184-185 (2004). (Highlighting transparency problems in the derivatives markets and how disclosure requirements may not help to reflect the true purposes of using such instruments).

[140] Financial Stability Oversight Council, *supra* note 59 at 20-21.

[141] *Ibid.*

operations in a transparent manner can hardly be achieved and it is possible that the prohibited proprietary trading could be masqueraded as portfolio hedging.[142] Such opaqueness makes it difficult to distinguish hedging activities from prohibited proprietary trading.[143] In addition, to hedge a position, there needs to be a commitment of principal risk. Such a commitment should be carefully monitored to ensure that hedging activities are proportionately linked to such exposures, whereas comingling principal risks and others in one portfolio might make such a determination very burdensome.[144]

(4) Other transactions on behalf of customers

Within the ambit of the permitted activities also falls the "purchase, sale, acquisition, or disposition of securities and other instruments . . . on behalf of customers."[145] Such an exception to the Volcker Rule is intended not to impede a bank's role in facilitating customer-driven transactions. It permits customer-serving banking activities as opposed to speculative activities with the bank's own capital.[146] Under the Volcker Rule, prime brokerage services of banks fall under this category of permitted activities.[147]

(ii) Backstops or limits on the permitted activities

As stated above, in order not to interfere with the smooth functioning of financial markets, the Volcker Rule exempts certain activities from the application of its prohibitions. These permitted activities, which involve taking principal risk, cover a range of activities that are incidental to core banking functions.[148] They include activities such as market making, underwriting, hedging, transactions on behalf of customers, and transactions in government securities. Nevertheless, these permitted activities themselves are subject to the so-called 'prudential backstops'.[149] In other words, as part of its fallback strategy, the Volcker Rule makes its exceptions subject to further exceptions.

The first limit on permitted activities under the Volcker Rule involves circumstances under which such permitted activities result in a material conflict of interest between the banking entity and it clients, customers, or

---

142 David H. Carpenter & M. Maureen Murphy, "The Volcker Rule: A Legal Analysis" (2014) Congressional Research Services 17 (2014).

143 Financial Stability Oversight Council, *supra* note 59 at 20-21.

144 Akshat Tewary, "Portfolio Hedging Is Alive and Well Under Volcker" American Banker (30 December 30. 2013), online: American Banker < https://www.american-banker.com/opinion/portfolio-hedging-is-alive-and-well-under-volcker >.

145 12 U.S.C. § 1851(d)(1)(D).

146 Financial Stability Oversight Council, *supra* note 59 at 22.

147 *Ibid.* at 57-59.

148 For the definitions of enumerated and incidental powers of a bank, see generally Julie L. Williams & Mark P. Jacobsen, "The Business of Banking: Looking to the Future" (1995), 50 The Business Lawyer at 783.

149 Financial Stability Oversight Council, *supra* note 59 at 47-48.

counterparties.[150] As mentioned earlier, addressing conflicts of interest was one of the main driving forces motivating the introduction of the Volcker Rule in the first place. Therefore, it would be self-defeating if the provisions of the Volcker Rule, themselves, lead to a higher likelihood of conflicts of interest. Hence, if the permitted activities under the Rule result in material conflicts of interest, they shall no longer be permitted.[151]

The second important exception to the permitted activities concerns the circumstances under which the permitted activity would directly or indirectly result in a material exposure by the banking entity to high-risk assets or high-risk trading strategies.[152] Since risk features of financial strategies and instruments are dynamic and can change over time, the relevant regulatory agencies should adopt flexible frameworks, rather than rigid definitions of 'high-risk assets' and 'high-risk trading strategies', with the focus being on the risks of an asset or strategy that can lead to the failure of a banking entity or serious losses thereto.[153] Since standards are more durable,[154] dynamic, flexible,[155] and less prone to regulatory arbitrage,[156] in devising such a flexible approach, it is important to make use of standards rather than rules.

In its report, the Financial Stability Oversight Council (FSOC) presents a number of non-exhaustive features that can be indicative of high-risk assets or high-risk trading strategies.[157] These features include: rapidly growing new products, assets and strategies with embedded leverage, historical volatility of the asset or strategy, their value at risk (VaR), hard-to-value assets, assets whose exposure cannot be quantified, risky assets whose risks cannot be adequately hedged away, and assets with features that the application of capital and liquidity standards cannot adequately account for their risks.[158]

---

[150] 12 U.S.C. § 1851(d)(2)(A).

[151] 12 U.S.C. § 1851(d)(2)(A)(i).

[152] 12 U.S.C. § 1851(d)(2)(A)(ii). The *Dodd-Frank Act* does not define a high-risk asset or high-risk trading strategy. Providing such definitions is to be done by the relevant agencies.

[153] Financial Stability Oversight Council, *supra* note 59 at 50-51.

[154] Isaac Ehrlich & Richard A. Posner, "An economic analysis of legal rulemaking" (1974), 3 The Journal of Legal 257 at 277-2788 (1974).

[155] Hans-Bernd Schaefer, "Legal Rule and Standards" in Charles K. Rowley & Friedrich Schneider, eds., The Encyclopedia of Public Choice, vol. 1 (Springer US, 2004) 347 at 3348, (Charles K. Rowley & Friedrich Schneider eds., 2004).

[156] Doreen McBarnet, "Financial Engineering or Legal Engineering? Legal Work, Legal Integrity and the Banking Crisis", in Iain G. MacNeil & Justin O'Brien, eds., *The Future of Financial Regulation* at 72 [McBarnet].

[157] Financial Stability Oversight Council, *supra* note 59 at 50-51.

[158] In order to assess the firm's exposure to high-risk assets or trading strategies, the report further suggests that relevant regulators require banking entities to establish an expert committee to appropriately assess such risks.

The third statutory limitation on the Volcker Rule's permitted activities involves cases in which those activities would pose a threat to the safety and soundness of a banking entity.[159] The fourth limit to the permitted activities is that allowing these activities would result in a threat to US financial stability.[160] Although it seems unlikely that an activity that has already complied with the above-mentioned prudential backstops, would pose a threat to US financial stability, there might be concerns that an imbalance in the financial system might be created by a permitted activity that does not threaten the safety and soundness of an individual financial institution.[161] In this case, regulatory agencies can prohibit those activities that are initially permitted under the Volcker Rule.

For a SINBFC supervised by the Board of Governors of the Federal Reserve System (the Board), the Volcker Rule does not impose any restrictions on their activities. However, it mandates the Board to adopt prudential rules, including imposition of higher capital charges or other restrictions addressing potential risks and conflicts of interest, to attain the objectives of the Volcker Rule.[162]

(d) Restrictions on investment in hedge and private equity funds

A Large Complex Financial Institution (LCFI) can have at least three main relationships with hedge funds. It can be a hedge fund's prime broker, its trading counterparty, and/or its owner or manager. These three main roles are not mutually exclusive, and one single LCFI can simultaneously undertake all three tasks.[163] The greatest concern about this interconnectedness arises when those three roles overlap and are concentrated in one LCFI. For years, depository institutions used to be involved in alternative investments and providing various services to hedge funds. Among other things, banking entities used to extend credit to hedge funds, act as their intermediaries and counterparties, manage their assets, invest in hedge funds, act as their prime brokers and custodians of their assets, and even establish hedge funds for themselves (known as banks' proprietary trading desk).[164]

Despite their benefits, hedge funds can potentially pose risks to financial systems and contribute to financial instability. Although their role in financial

---

159 12 U.S.C. § 1851(d)(2)(A)(iii).

160 12 U.S.C. § 1851(d)(2)(A)(iv).

161 Financial Stability Oversight Council, *supra* note 59 at 52. In addition, to protect the safety and soundness of banking entities, the Volcker Rule requires regulators to impose additional capital requirements and quantitative limitations. Nevertheless, the Volcker Rule should not be construed to limit the ability of a banking entity or a non-bank financial company supervised by the Fed to sell or securitize loans.

162 12 U.S.C. § 1851(a)(2).

163 Michael R. King & Philip Maier, "Hedge Funds and Financial Stability: Regulating Prime Brokers Will Mitigate Systemic Risks" (2009), 5 Journal of Financial Stability 283 at 290.

164 J. S. Aikman, When Prime Brokers Fail: The Unheeded Risk to Hedge Funds, Banks, and the Financial Industry (New Jersey: John Wiley & Sons Inc., 2010) at 126-127.

instability is highly contested,[165] hedge funds' size, leverage, their interconnectedness with LCFIs, and the likelihood of herd behavior among hedge funds are among the features that can make them systemically important.[166] The data on hedge funds' size[167] and leverage[168] shows that these features are far from being systemically important. Nevertheless, empirical evidence on hedge fund interconnectedness and herding behavior (e.g., a run on prime brokers) is mixed and remains a major concern for regulators.[169] Therefore, among other things, systemic risk originating from the connectivity of the hedge fund industry to the banking industry as a ground for regulatory intervention[170] equally provides a rationale for public policy intervention in the hedge fund industry. However, regulation of hedge funds due to their systemic importance should focus on hedge fund interconnectedness with LCFIs.[171]

The Volcker Rule is an attempt to indirectly regulate hedge funds through direct regulation of the banks that often perform the role of hedge fund

---

[165] Nicolas Papageorgiou & Florent Salmon, "The Role of Hedge Funds in the Banking Crisis: Victim or Culprit", in Greg N. Gregoriou ed., *The Banking Crisis Handbook* (Florida: Taylor & Francis Group, 2010).

[166] Consistent with the industry's modest size, hedge fund liquidation had, overall, a very limited impact on financial markets. Ben S. Bernanke, "Hedge Funds and Systemic Risk" (delivered at the Federal Reserve Bank of Atlanta's 2006 Financial Markets Conference) [Bernanke]. See also Anurag Gupta & Bing Liang, "Do Hedge Funds have Enough Capital? A Value-at-Risk Approach", (2005) 77 Journal of Financial Economics 219 [Gupta & Liang] (illustrating that the leverage of hedge funds is significantly lower than that of depository institutions, listed investment banks, and broker-dealers). See also Nicole M. Boyson *et al.*, "Hedge Fund Contagion and Liquidity Shocks", (2010) 65 The Journal of Finance 1789 [Boyson *et al.*].

[167] The data on hedge fund size demonstrates its relatively modest size compared to mainstream financial institutions. Estimates of the size of the hedge fund industry in March 2012 indicated that the hedge fund industry's assets under management (AUM) amounted to $2.55 trillion. See Citi Prime Finance, "Hedge Fund Industry Snapshot", Citi Prime Finance (May 2013), online: <http://www.citigroup.com/icg/global_markets/prime_finance/docs/hf_monthly_jun13.pdf>. According to the latest HFR Global Hedge Fund Industry Report, hedge fund capital was $2.90 trillion in the fourth quarter of 2015. See HFR Global Hedge Fund Industry Report: Year End 2015 (January 20, 2016). Consistent with the industry's modest size, hedge fund liquidation had, overall, very limited impact on financial markets. See Bernanke, *supra* note 166.

[168] See Gupta & Liang, *supra* note 166. See also Andrew Ang *et al.*, "Hedge Fund Leverage", (2011) 121 Journal of Financial Economics 102.

[169] Boyson *et al.*, *supra* note 166 at 1814. See William Fung & David A. Hsieh, "Measuring the market impact of hedge funds" (2000), 7 Journal of Empiral Finance 1 (providing evidence of hedge fund herding in the European Exchange Rate Mechanism (ERM) crisis and in the Asian Crisis; however, they found little evidence of a systematically causal relationship of hedge funds behavior and a deviation of market prices from economic fundamentals).

[170] For more details about why systemic risks and their associated externalities should be regulated, see Brunnermeier *et al.*, *supra* note 6.

[171] Nabilou & Pacces, *supra* note 8.

counterparties, creditors, sponsors, investors, or prime brokers. Subject to certain exceptions, the Rule prohibits depository institutions from engaging in proprietary trading and investing in or sponsoring hedge funds and private equity funds. The primary goal of this provision is to prohibit the banking system from speculative trading with the banks' own capital, mitigate the potential conflicts of interest between a banking entity and its customers, and reduce the risks to the banks and non-bank financial companies designated as SINBFCs that are subject to supervision by the Board.[172]

The Volcker Rule's provisions relating to hedge funds and private equity funds prohibit a banking entity from investing in, or having certain relationships with, hedge funds and private equity funds as defined under the exclusions of the *Investment Company Act* of 1940.[173] These restrictions prohibit a banking entity from acquiring or retaining any equity, partnership, or other ownership interest in, or sponsoring, a hedge fund or a private equity fund.[174] The Volcker Rule's prohibitions on investment in hedge funds and private equity funds and its prohibitions on proprietary trading basically share the same objectives. Namely, not only do these restrictions intend to eliminate federal support for the speculative investing strategies of banking entities with their own capital, but they also intend to reduce the conflicts of interest between a banking entity and its customers. In the meantime, they strive to reduce the risk to banking entities and SINBFCs supervised by the Board.[175]

As mentioned earlier, one of the objectives of the Volcker Rule is to restrict the cross-subsidization of private funds by the taxpayer money through depository institutions. Banks are often afforded an explicit two-pronged safety net. The first component of the US system of safety nets is the banking system's access to the LOLR facilities of the Federal Reserve. The second component is deposit insurance, which is provided by the federal government to prevent runs on the member banks.[176] In addition, there is an implicit or *de facto* safety net for banks that are deemed to be too-big-to-fail, too-interconnected-to-fail, or too-correlated-to-fail.[177] Ultimately, these safety nets are partially funded by taxpayer money to sustain the essential role of banks in providing credit and offering payment services.[178] By imposing restrictions on the banking entities' investment in hedge funds and private equity funds, the Volcker Rule aims to cut the transfer of such subsidies from banks to private funds.

---

172 Financial Stability Oversight Council, *supra* note 59 at 15.

173 The *Investment Company Act* of 1940, 15 U.S.C. § 80a-1 *et seq.*

174 12 U.S.C. § 1851(a)(1)(B).

175 Financial Stability Oversight Council, *supra* note 59 at 56.

176 Calomiris & White, *supra* note 76.

177 Elijah Brewer, III & Julapa Jagtiani, "How Much Did Banks Pay to Become Too-Big-To-Fail and to Become Systemically Important?" (2013) 43 Journal of Financial Services Research 1 [Brewer & Jagtiani].

178 Malysheva & Walter, *supra* note 66.

On the other hand, as with proprietary trading, the sponsorship of hedge funds and private equity funds can be a potential source of risk and liquidity stress to banks. Out of reputational concerns, a banking entity might rescue a failing sponsored fund or a failing fund that it advises. Such support for failing hedge funds was well documented in the recent global financial crisis.[179] Moreover, the complexities involving in investment in hedge funds and private equity funds and the inherent opaqueness of those funds limit market participants' ability to properly monitor the risks to the banking entities sponsoring such funds. Such opaqueness can create more uncertainty about the safety and soundness of the financial institutions sponsoring or having significant investments in private funds.[180]

In line with addressing concerns about cross-subsidization of hedge funds through transfer of government subsidies to speculative proprietary trading, the Volcker Rule generally prohibits investment by banks in hedge and private equity funds that are completely detached from their customer-serving activities.[181] The goal is achieved by the use of the broad language of the Volcker Rule, which stipulates that a banking entity shall not "acquire or retain any equity, partnership, or other ownership interest in or sponsor a hedge fund or a private equity fund."[182]

The aim of the Volcker Rule's restrictions on a banking entity's investment or sponsorship of hedge funds that are not related to the provision of "bona fide trust, fiduciary, or investment advisory services" to its customers is manifold. Since a banking entity's investment in or sponsorship of hedge funds can be used to circumvent the Volcker Rule's restrictions on proprietary trading, such a prohibition on hedge fund sponsorship ensures that banks will not be able to circumvent proprietary trading prohibitions by investing in hedge funds and private equity funds. The second objective is to limit the scope of private fund-related activities of banking entities to customer-related services,[183] such as prime brokerage activities. Another objective is also to eliminate the contingencies in which banking entities might bail out the funds they advise, sponsor, or significantly invest in out of reputational concerns.[184]

Under the Volcker Rule, a hedge fund or a private equity fund is an issuer that would be an investment company, as defined in the *Investment Company Act* of 1940[185] but for section 3(c)(1) or 3(c)(7) of that Act, or such similar funds as

---

[179] Duffie, *supra* note 82 at 59.

[180] Financial Stability Oversight Council, *supra* note 59 at 56.

[181] *Ibid.*

[182] 12 U.S.C. § 1851(a)(1)(B).

[183] For a definition of a 'customer' and its difference from a 'client' and the problems arising from the need for a clear definition of these terms with respect to the Volcker Rule, see Financial Stability Oversight Council, *supra* note 59 at 63-64.

[184] *Ibid.* at 6-7.

[185] 15 U.S.C. 80a-1 *et seq.*

the appropriate federal banking agencies, the Securities and Exchange Commission (SEC), and the Commodity Futures Trading Commission (CFTC) may determine.[186] Therefore, hedge funds and private equity funds are defined to include any issuer that relies on the exemptions of the definition of investment company under sections 3(c)(1) or 3(c)(7) of the *Investment Company Act.*[187] According to the *Investment Company Act* "an issuer that is not making and does not presently propose to make a public offering of its securities and either (i) has outstanding securities that are beneficially owned by not more than one hundred persons or (ii) has outstanding securities that are owned exclusively by qualified purchasers" is excluded from the definition of investment company.[188] Along with hedge funds, a large number and variety of other legal entities use the exemptions from the *Investment Company Act*. These entities include special purpose acquisition vehicles, certain ERISA-qualified employee pension funds,[189] controlled subsidiaries, certain joint ventures, and, at least potentially, certain venture capital funds.[190]

There are major problems with the definitions of a hedge fund and a private equity fund under the Volcker Rule. The first and foremost is that the definition is both over- and under-inclusive. Therefore, the prohibitions of the Volcker Rule might include funds that were not intended to fall under the regulatory purview of the Rule. In other words, not all investment funds traditionally considered to be hedge funds or private equity funds rely on the exemptions set forth in section 3(c)(1) or 3(c)(7) of the *Investment Company Act*. It is possible to create investment funds that rely on other exemptions of the *Investment Company Act* that do not fall within the definition of hedge funds and private equity funds, but such funds may pursue the same strategies as hedge funds and private equity funds do. These funds might not be captured by the Volcker Rule's definitions. For example, commodity pools that do not mainly invest in financial instruments fall into in this category.[191]

The potential challenge to the definitions in the Volcker Rule is that "definitions and criteria involving clear rules or thresholds make particularly

---

186 12 U.S.C. § 1851(h)(2).

187 Financial Stability Oversight Council, *supra* note 59 at 57.

188 15 U.S.C. § 80a-3(c).

189 ERISA, *supra* note 63.

190 Financial Stability Oversight Council, *supra* note 59 at 61-63.

191 The under-inclusiveness of the definition is partly addressed by the grant of congressional authority to regulators to bring 'similar funds' within the scope of the Volcker Rule. In determining which funds should be included in the category of similar funds, regulators should consider the investment activities and other features of the fund, including its compensation structure, trading and investment strategy, use of leverage, and investor composition. Indeed, the statutory exemptions set forth in the *Investment Company Act* do not apply exclusively to hedge funds and private equity funds. Therefore, the criteria for delineating the exceptions of the Volcker Rule remain to be determined by future rule making. *Ibid.*

valuable material for legal engineers to work on",[192] which can potentially lead to regulatory arbitrage. In addition to the inherent indeterminacy in language,[193] the prospective generalizations, which are the necessary features of law,[194] are another source of indeterminacy and vagueness in statutory definitions. This limited linguistic ability, coupled with problems of interpretation, breed opportunities in which technical compliance with rules and regulations can be achieved while undermining their underlying spirit and the purpose on which the entire regulatory system or a specific law is predicated. Compliance of this sort, dubbed 'creative compliance', which essentially involves "using the law to escape legal control without actually violating legal rules",[195] is well documented in regulatory literature.[196]

Likewise, rules-based direct regulation of hedge funds, along with the appeal to the literal meaning of words in adjudication and legal interpretation, can be used to undermine the very purpose of the Volcker Rule. As history suggests, hedge fund regulation was not an exception to this general rule and even the earliest attempts to regulate hedge funds were smothered by definitional problems, exemplified by the US District of Columbia Circuit Court of Appeals' decision in *Goldstein v. SEC.*[197] Therefore, regulatory arbitrage concerns stemming from definitional problems remains a major concern.

The prohibitions of the Volcker Rule on banking entities' relationships with hedge funds are not in the form of general and outright bans; they also have their exceptions. A banking entity is allowed to organize and offer a fund in connection with its bona fide trust, fiduciary, and investment advisory services.[198] In addition, banking entities are allowed to invest in hedge funds and private equity funds up to a *de minimis* amount.[199] These exemptions enable banking entities to establish start-up funds and attract investors in connection with their customer-related businesses. The next section studies these exceptions.

(iii) Permitted Activities

The Volcker Rule excludes certain activities from the broad prohibitions on investment in hedge funds and private equity funds by banking entities. The

---

192 McBarnet, *supra* note 156.

193 H. L. A. Hart, *The Concept of Law*, 3rd ed. (Great Britain: Oxford University Press, 1994) at 126 § 2.

194 Joseph Raz, *The Authority of Law: Essays on Law and Morality* (New York: Oxford University Press, 1979) at 214-218.

195 D. McBarnet & C. Whelan, "The Elusive Spirit of the Law: Formalism and the Struggle for Legal Control" (1991), 54 Modern Law Review 848.

196 See Karen Yeung, *Securing Compliance: A Principled Approach* (Oregon: Hart Publishing, 2004).

197 See *Goldstein v. SEC*, 451 F.3d 873 at 884 (D.C. Cir., 2006) and the battle over the word 'client'.

198 12 U.S.C. § 1851(d)(1)(G).

199 *Ibid.*

underlying philosophy of the 'permitted activities' is that banking entities in general play an important role in providing financial services, including providing bona fide trust, fiduciary and investment advisory services. When banking activities, which are related to hedge fund and private equity funds, support customer-focused advisory services of the banking entity, they should be allowed. In general, a banking entity is allowed to organize, offer, or invest in a hedge fund or private equity fund if:

1. the banking entity provides bona fide trust, fiduciary, or investment advisory services;
2. the fund is organized and offered only in connection with the provision of bona fide trust, fiduciary, or investment advisory services and only to persons who are customers of such services of the banking entity;
3. the banking entity does not acquire or retain an equity interest, partnership interest, or other ownership interest in the fund except for a *de minimis* investment;
4. the banking entity complies with the restrictions that ban the banking entity and its subsidiaries from entering into covered transactions (which are broadly defined as transactions with or involving affiliates) under specific circumstances;
5. the banking entity does not, directly or indirectly, guarantee, assume, or otherwise insure the obligations or performance of the hedge fund or private equity fund or of any hedge fund or private equity fund in which such a hedge fund or private equity fund invests;[200]

Under the Volcker Rule, a banking entity can offer prime brokerage services to hedge funds or private equity funds in which affiliated hedge funds of the banking entities have taken interest subject to the 'arm's length' requirements of the sections 23B of the *Federal Reserve Act*. In other words, since offering prime brokerage services is neither considered as sponsoring nor investing in hedge

[200] Further restrictions include:1. the banking entity does not share the same name or a variation of the same name with the hedge fund or private equity fund;2. no director or employee of the banking entity takes or retains an equity interest, partnership interest, or other ownership interest in the hedge fund or private equity fund, except for any director or employee of the banking entity who directly engages in providing investment advisory or other services to the hedge fund or private equity fund;3. the banking entity discloses to prospective and actual investors in the fund, in writing, that any losses in such hedge funds or private equity funds are borne solely by investors in the funds and not by the banking entity, and otherwise complies with any additional rules of the appropriate federal banking agencies, the SEC, or the CFTC, designed to ensure that losses in such hedge funds or private equity funds are borne solely by investors in the funds and not by the banking entity; and4. certain other conditions including the banking entity's compliance with the restrictions on 'covered transactions' under Sections 23A and 23B of the *Federal Reserve Act* are met. See 12 U.S.C. § 1851(d)(1)(G).

funds, by no means does the Volcker Rule prohibit a banking entity from offering prime brokerage services to independent hedge funds and private equity funds.[201]

(iv) De Minimis Investments

As one of the exceptions to the Volcker Rule, taking or retaining a 3% or lower *de minimis* investment in a hedge fund or private equity fund that the banking entity organizes or offers in connection with bona fide trust, fiduciary and investment advisory functions is permitted subject to certain limitations and conditions.[202] The amount of the *de minimis* investment must be immaterial to the banking entity and may, at most, comprise up to 3% of the total ownership interest of such a fund following an initial one-year seeding period; namely, after one year from the establishment of the fund. Within the one-year seeding period, the banking entity is allowed to provide up to 100% of the capital of a hedge fund or a private equity fund it sponsors.[203] However, the aggregate of all the interests of the banking entity in all hedge funds and private equity funds should not exceed 3% of the Tier 1 capital of the banking entity.[204]

Moreover, the Volcker Rule's authorization of *de minimis* investments in hedge funds and private equity funds is subject to another constraint. The amounts of the banking entity's investment in hedge funds must be deducted from the banking entity's capital. Such deductions must be further increased in proportion to the leverage of the fund.[205] Last but not least, to prevent conflicts of interest, particularly within the scope of the *de minimis* exception, such investments must be in connection with the customer-related activities.[206]

---

[201] Financial Stability Oversight Council, *supra* note 59 at 57-59.

[202] The first condition to be met is that such an investment should be for the purposes of establishing the fund and the second is that the investment should be a *de minimis* investment. 12 U.S.C. § 1851(d)(4)(A).

[203] 12 U.S.C. § 1851(d)(4)(B)(ii)(I).

[204] 12 U.S.C. § 1851(d)(4)(B)(ii)(II). In the first proposed bill to the Congress, there was an outright ban on such investments. However, the first political compromise allowed banking entities to invest up to 3% of their tangible common equity in hedge funds or private equity funds. Tangible common equity consists of shareholder equity and is perceived as the strongest form of a bank's capital. However, such a proposal faced strong resentment from the industry, which resulted in another amendment. That amendment changed the 3% of tangible common equity to 3% of Tier 1 capital, the scope of which is much broader than that of tangible common equity. See Shahien Nasiripour, "Financial Reform Bill Passes: Banks Keep Derivatives Units, Volcker Rules Softened; House-Senate Conference Passes Financial Reform Bill After Marathon Session", *The Huffington Post* (25 June 2010), online: <http://www.huffingtonpost.com/2010/06/25/financial-reform-bill-pas_n_625191.html>.

[205] Financial Stability Oversight Council, *supra* note 59 at 65-67.

[206] *Ibid.*

(e) Prohibitions on 'covered transactions'

The Volcker Rule further prohibits a banking entity that serves as an investment manager, an adviser, or a sponsor to a hedge fund or private equity fund and any affiliate of such an entity from entering into a 'covered transaction' as defined in Section 23A of the *Federal Reserve Act*.[207] A 'covered transaction' includes making loans, purchasing assets, extending guarantees, etc.[208] Section 1851(f)(2) of the Volcker Rule requires that no banking entity or its affiliates that invests or sponsors a hedge fund or private equity fund may enter into a transaction with the fund or its affiliates that would be a covered transaction. [209]

Therefore, the second condition imposed on the permitted activities of banking entities in connecting with investing in hedge funds and private equity funds is that such activities should be subject to the requirements of section 23A of the *Federal Reserve Act*, which imposes strict qualitative and quantitative restrictions on 'covered transactions' between a banking entity and an affiliate. Section 23A includes two quantitative and two qualitative rules:

1. A bank's total covered transactions with a single affiliate must not exceed 10% of the bank's total capital.

2. The total amount of the bank's covered transactions with all affiliates combined must not exceed 20% of the bank's capital.

3. Any extension of credit must be fully secured by the qualifying collateral. The value of the collateral must be between 100% and 130% of the amount of the covered transactions.

4. A bank cannot purchase a low-quality asset from an affiliate.

In addition, section 23B imposes an 'arm's length' requirement on the terms of any transaction between a banking entity that organizes, offers, or sponsors a hedge fund or private equity fund or that acts as an investment manager or adviser to the hedge or private equity fund. The arm's length requirement means that these transactions must be concluded on market terms and conditions. Therefore, virtually none of the financial transactions between an insured depository institution and an affiliate can be on terms more favourable than market terms. Such restrictions are particularly effective in reducing the likelihood of conflicts of interest and transfer of the benefits of banks' deposit insurance and the safety net from insured depository institutions to hedge funds.[210]

Prior to the *Dodd-Frank Act*, many private equity funds, foreign investment funds, and commodity funds could avoid being treated as an affiliate because

---

[207] 12 U.S.C. § 1851(f).

[208] 12 C.F.R. § 223.3(h) (also known as Regulation W).

[209] 12 U.S.C. § 1851(f)(1).

[210] Financial Stability Oversight Council, *supra* note 59 at 67-68.

they were not considered a registered investment company under the *Investment Company Act*, and hence were not deemed to be an affiliate for the purposes of sections 23A and 23B of the *Federal Reserve Act*.[211] In other words, the prohibitions of sections 23A and 23B of the *Federal Reserve Act* on the banking entities did not deem all hedge funds and private equity funds sponsored by a banking entity to be affiliates of the banking entity. Nonetheless, after the introduction of the Volcker Rule, all hedge funds and private equity funds offered, advised, or sponsored by a banking entity are subject to stricter restrictions.[212]

Another permitted activity for a banking entity under the Volcker Rule concerns the establishment of feeder funds, where it is necessary for the banking entity — in connection with its customer-focused advisory services — to provide customers with access to third-party hedge funds or private equity funds by establishing funds that invest in third-party funds. Organization of such funds is justified because in such a structure the risks associated with feeder funds are entirely borne by the investors in those funds and do not pose any risk to the banking entity itself.[213] Nonetheless, there might be concerns about conflicts of interest if a banking entity "directs a feeder fund or fund of fund investment to a third-party hedge fund or private equity fund with which the banking entity has other business relationships."[214]

To avoid such circumstances, regulators should be particularly keen to ensure the banking entity's business activities with third-party funds complies with the Volcker Rule's prohibition of the 'covered transactions' (e.g., "making loans, purchasing assets and extending guarantees") and the restrictions that section 23B of the *Federal Reserve Act*'s 'arm's length' transaction requirement impose on such business relationships. In addition, regulators should ensure that such arrangements do not create opportunities for banking entities to protect hedge funds or private equity funds from losses or to bail them out in case of distress. Furthermore, they should also ensure that such arrangements do not give rise to contingencies in which the banking entity might be exposed to outsized risks by those funds.[215]

(f) Limits on permitted activities

As with the limitations on permitted activities under the proprietary trading provisions, the Volcker Rule provides limitations on permitted activities under the provisions prohibiting certain business relationships between banking entities and hedge funds. Indeed, the same statutory 'backstops' for the permitted

---

[211] Even such funds were covered by these provisions, if the banking entity owned more than 5% of the fund's capital.

[212] Financial Stability Oversight Council, *supra* note 59 at 67-68.

[213] *Ibid.* at 64-65.

[214] *Ibid.*

[215] *Ibid.*

activities with respect to proprietary trading also apply to the permitted activities under the provisions limiting the business relationship between a banking entity and a hedge fund or private equity fund. These statutory backstops involve circumstances under which the permitted banking entity's relationships with hedge funds and private equity funds result in material conflicts of interest, material exposure to high-risk assets or high-risk trading strategies, a threat to the safety and soundness of the banking entity, or a threat to US financial stability.[216]

3. AN EARLY ASSESSMENT

The prohibitions of the Volcker Rule on proprietary trading and banking entities' investment and sponsorship of hedge funds and private equity funds pursue three main objectives: addressing problems arising from the interconnectedness of hedge funds with LCFIs; preventing cross-subsidization of hedge funds by their parent depository institutions with the access to explicit and implicit government guarantees; and mitigation of conflicts of interest in the relationship between banks, their customers, and hedge funds. In addition to protecting investors and taxpayers' money, the Volcker Rule should also avoid putting US banks at a competitive disadvantage in global markets dominated by universal banks.[217] It is clear that achieving all of these often-competing objectives is the greatest challenge to implementing the Volcker Rule. Therefore, the Rule's success or failure must be evaluated against the goals it sets to achieve at the lowest cost to market efficiency and competitiveness of US financial institutions.

In terms of achieving these objectives, the Volcker Rule can only be partially successful: the first reason being that it is the product of political compromises made to pass the legislation. Indeed, Paul Volcker himself is quoted as saying that the bill containing the Volcker Rule "went from what is best to what could be passed" in the process of its enactment.[218] The most striking of these compromises is best depicted in the extensive exceptions to the Volcker Rule, which allegedly made it toothless.[219] These exceptions even convinced Paul Volcker himself that the success of the Volcker Rule depends much on the way it will be implemented.[220]

In addition to political compromises, one of the key aspects of the implementation of the Volcker Rule relies on the regulators' ability to

---

[216] 12 U.S.C. § 1851(d)(2).

[217] Alison K. Gary, "Creating A Future Economic Crisis: Political Failure and the Loopholes of the Volcker Rule", (2012) 90 Oregon Law Review 1339 [Gary] at 1350.

[218] Louis Uchitelle, "Volcker Pushes for Reform, Regretting Past Silence" *The New York Times*, (10 July 2010), online: <http://www.nytimes.com/2010/07/11/business/11volcker.html?pagewanted=all&_r=0> [Uchitelle].

[219] Gary, *supra* note 217 at 1349.

[220] Uchitelle, *supra* note 218.

distinguish permitted activities from prohibited ones. The problem of distinguishing such activities ultimately boils down to definitional problems.[221] Indeed, there is ample need for definitions in implementing the Volcker Rule. For example, the Rule allows banking entities to offer organized or sponsored funds only to 'customers' of a banking entity.[222] In this respect, there is a need for a definition of the word 'customer' in way that does not allow all of its clients and counterparties to take advantage of the term 'customer'. Moreover, the *de minimis* exception applies in two cases. It is applied "to restrict the exposure of a banking entity to 3% of any single fund" and also to limit the banking entity's aggregate exposure to 3% of its Tier 1 capital.[223] In either case, calculating the *de minimis* investment will pose a challenge for the regulators.

Therefore, future definitions of the key terms in the Volcker Rule will play a major role in minimizing the risk of its evasion. The question, which as yet remains unanswered, is whether regulators will be able to create mechanisms to distinguish prohibited activities from permitted activities that share common features. Given that regulators already tried — and failed — to appropriately define 'proprietary trading' in 2005, and have since come to the conclusion that preventing proprietary trading requires a subjective, case-by-case evaluation,[224] any future definitions might fare no better. Since such assessments will undoubtedly require many case-by-case analyses of the various banking entities' activities, it is not yet known what the costs of such assessments will be in practice. It also remains to be seen what the public policy response will be should the costs of such case-by-case assessments exceed their benefits.

Moreover, it is important not to allow prohibited activities to occur throughout the entire banking entity and not just within its certain units. Effective regulation should prevent banking entities from relocating their proprietary trading activities from their existing proprietary trading desks to other operational units. Thus far, major banks have already spun off or closed down their standalone 'bright line proprietary trading' businesses.[225] However,

---

221 For example, one of the concerns about the Volcker Rule is related to its unintended consequences with respect to the definitions regarding the terms 'hedge fund', 'private equity fund', 'proprietary trading', 'market making', 'hedging', and 'customer-driven transactions'. Inappropriate definitions of such terms might have adverse consequences on financial institutions, particularly on their liquidity management. For similar concerns regarding definitional problems, see Douglas J. Elliott & Christian Rauch, "Lessons from the Implementation of the Volcker Rule for Banking Structural Reform in the European Union" (2014) Center of Excellence SAFE White Paper Series No. 13.

222 2 U.S.C. § 1851(d)(1)(G)(ii).

223 12 U.S.C. § 1851(d)(4)(B)(ii)(II). See also Financial Stability Oversight Council, *supra* note 59 at 6-7.

224 Sabel Bradley, "General Accountability Office Struggles with Dodd-Frank's Volcker Rule" Harvard Law School Forum on Corporate Governance and Financial Regulation (26 August 2011), online: Harvard Law School Forum on Corporate Governance and Financial Regulation <http://blogs.law.harvard.edu/corpgov/2011/08/26/general-accountability-office-struggles-with-dodd-franks-volcker-rule/>.

such activities might well migrate to other divisions in the investment banks. To prevent such evasion (i.e., regulatory arbitrage either by the banks or by the hedge funds), the Volcker Rule gives regulatory agencies extensive powers both in rule making and in implementing the Volcker Rule.[226]

In addition to definitional problems, which might undermine the attainment of the objectives of the Volcker Rule in terms of addressing interconnectedness, the Rule's success depends, to a great extent, on its future implementation by regulatory agencies. For example, one of the provisions of the Volcker Rule containing an exception, which is considered a large loophole, involves permitting *de minimis* investment by banking entities in a hedge fund up to 3% of bank's Tier 1 Capital.[227] Though essential for the viability of the hedge fund and private equity fund industry, banks and hedge funds can potentially exploit this exception. Moreover, the Volcker Rule's authorization for a banking entity to serve as a general partner, managing member, or trustee of a hedge fund, or to hold, subject to certain conditions, a controlling interest in a hedge fund,[228] can be seen as another potential loophole that banks and hedge funds can exploit, with the likely end result of putting banking entities at risk. Although it is suggested that an outright prohibition on banks' involvement in hedge funds is the best way to prevent losses to the banking entity,[229] such a general ban might result in a loss of the benefits that hedge funds deliver to banks, and vice versa.

Another criticism to the Volcker Rule is that it might give rise to certain unintended consequences. For example, in response to the Rule, some activities may move to the shadow banking sector because of increased regulatory costs to banks.[230] Although preventing banking entities from engaging in proprietary trading by subsidized funds is the very objective of the Volcker Rule, as an unintended consequence, the Rule can inadvertently shift proprietary trading activities away from regulated banks to more lightly-regulated non-banks.[231]

Furthermore, it is likely that any exodus of proprietary trading might move such trading away from US banks to non-US banks and financial institutions, particularly if, compared to other principal financial jurisdictions, the costs of

---

225 Financial Stability Oversight Council, *supra* note 59 at 17-18.

226 Nonetheless, the *Dodd-Frank Act* in general and the Volcker Rule in particular have been criticized for delegating too many details to regulatory agencies.

227 12 U.S.C. § 1851(d)(4)(B)(ii)(II).

228 12 U.S.C. § 1851(d)(1)(G).

229 Gary, *supra* note 217 at 1362.

230 İnci Ötker-Robe *et al.*, "Impact of Regulatory Reforms on Large and Complex Financial Institutions" The International Monetary Fund (3 November 2010), online: <https://www.imf.org/external/pubs/ft/spn/2010/spn1016.pdf>, IMF Staff Position Note 26.

231 Charles K. Whitehead, "The Volcker Rule and Evolving Financial Markets" (2011), 1 Hazrvard Business Law Review 39. This is what happened to the Volcker Rule's predecessor (i.e., the *Glass-Steagall Act*) which ultimately led to its demise. See Acharya, *et al.*, *supra* note 69 at 368-370.

implementing the Volcker Rule for regulated firms exceed the potential benefits that such regulation can offer. In this case, at least at first blush, it seems that the costs far outweigh the benefits to banking institutions.[232] However, such concerns are at least partially ameliorated because in the wake of the global financial crisis, most shadow banks, including hedge funds, became subject to heavier regulations in major financial centers around the globe.[233]

As mentioned earlier, the Volcker Rule is viewed as the *Dodd-Frank Act*'s version of separation of investment banking from commercial banking by the now-repealed *Glass-Steagall Act* and, accordingly, it has been dubbed 'Glass-Steagall Lite'.[234] It follows that the Rule can be subject to many of the objections raised against the *Glass-Steagall Act*, which culminated in its erosion through time and its repeal in 1999. For instance, the prohibitions of the Volcker Rule on proprietary trading might increase systemic risk, because they will not allow banking entities to adequately diversify their risks.[235] However, it seems that concerns about the adverse effects of the Volcker Rule on diversification in the banking sector and its overall impact on financial stability is unfounded, because it is only the idiosyncratic or firm-specific risk (and not systemic risk) that can be diversified away.[236] In addition, although diversification originating from mixing banking and non-banking activities can reduce the likelihood of individual bank defaults, it may increase the likelihood of systemic risk.[237] In other words, integrated conglomerates composed of both banks and non-banks are financed by risk-insensitive (or information-insensitive) deposits that weaken the market discipline on their non-bank divisions.[238] Therefore, non-bank divisions tend to take more risks. Such a conclusion — that is to say, the cost of mixing traditional banking activities with other financial services within financial holding companies (FHCs) increases the market risk of the firm — is also supported

232 Thakor, *supra* note 133.

233 For example, the EU's Alternative Investment Fund Managers Directive (AIFMD) contains more stringent regulations for the hedge fund industry than the regulatory framework of hedge funds in the U.S. See Hossein Nabilou, "The Alternative Investment Fund Managers Directive and Regulation of Hedge Funds' Potential Systemic Risks in the EU" (11 November 2013) SSRN Working Paper Series.

234 Acharya & Richardson, *supra* note 4 at 15.

235 See Leonardo Gambacorta & Adrian Van Rixtel, "Structural bank regulation initiatives: approaches and implications" (April 2013) BIS Working Paper No. 412, 6, online: Bank for International Settlements <http://www.bis.org/publ/work412.pdf> (providing an overview of the economies of scope in banking and discussing whether the Volcker Rule leads to a loss of some diversification benefits).

236 Acharya & Richardson, *supra* note 4 at 15-16.

237 Kevin J. Stiroh & Adrienne Rumble, "The Dark Side of Diversification: The Case of US Financial Holding Companies" (2006), 30 Journal of Banking & Finance 2131 [Stiroh & Rumble].

238 Xavier Freixas *et al.*, "Regulating financial conglomerates", (2007) 16 Journal of Financial Intermediation 479.

by recent empirical studies arguing that diversification gains are more than offset by the costs associated with the exposure to volatile activities.[239]

Another criticism, based on the analogy of the Volcker Rule with the *Glass-Steagall Act*, is predicated on highlighting the potential forgone efficiencies in terms of economies of scale and scope.[240] Empirical evidence on optimal size of a banking entity is mixed. On the one hand, it is suggested that the efficient size for a banking entity might be very small.[241] On the other hand, some empirical evidence shows substantial economies of scale in banking.[242] In addition, it is suggested that big banks' profitability might not be attributable to efficiencies created by their scale, but it should be studied in light of the implicit guarantees offered to too-big-to-fail banks.[243] The distortive impact of these guarantees is such that some mergers in the banking sector were motivated by achieving too-big-to-fail status and thereby gaining access to implicit government guarantees.[244] Thus, it seems that theoretical and empirical evidence does not strongly support objections to the Volcker Rule on the grounds that the Rule stymies the benefits of diversification and economies of scale and scope in the banking sector.

With respect to prohibiting cross-subsidization of hedge funds through banks, the basic argument for the Volcker Rule is that letting financial institutions invest on their own accounts while funding their activities at below-market rates coming out of the government's explicit and implicit guarantees cannot be justified.[245] Indeed, in terms of cross-subsidization concerns, the Volcker Rule and its exceptions strike a reasonable balance between preventing such opportunistic behavior (taking advantage of government subsidies) while not stifling investment by banks in hedge funds and private equity funds, particularly in those funds that are in the start-up phase.

---

[239] Stiroh & Rumble, *supra* note 237. See also Wolf Wagner, "Diversification at financial institutions and systemic crises" (2010), 19 Journal of Financial Intermediation 373 (arguing that diversification can lead to more homogeneity in the financial sector by exposing more financial institutions to similar risks).

[240] Allen N. Berger *et al.*, "The Efficiency of Financial Institutions: A Review and Preview of Research Past, Present and Future", (1993) 17 Special Issue on the Efficiency of Financial Institutions 221 (providing an overview of the scale and scope economies in financial institutions).

[241] *Ibid.*

[242] Joseph P. Hughes & Loretta J. Mester, "Who said large banks don't experience scale economies? Evidence from a risk-return-driven cost function", (2013) 22 Journal of Financial Intermediation 559.

[243] Brewer & Jagtiani, *supra* note 177.

[244] *Ibid.*

[245] This argument equally applies to other financial institutions having access to government subsides, especially Government-Sponsored Enterprises (GSEs), such as Fannie Mae and Freddie Mac and, implicitly, guaranteed enterprises, such as those perceived to be too big to fail. See Acharya & Richardson, *supra* note 4 at 15.

With respect to conflicts of interest, the extensive exceptions in the Volcker Rule, both to proprietary trading and investment in hedge funds and private equity funds, though marginally mitigating conflicts of interest, fall short of providing a conflict-of-interest-proof environment for all stakeholders, notably the banking entity, its customers, and hedge funds. However, it remains to be seen how monitoring and management of conflicts of interest will be conducted in practice.

4. CONCLUSION

The Volcker Rule pursues three main objectives: addressing problems arising from the interconnectedness of hedge funds with LCFIs; preventing cross-subsidization of hedge funds by banks; and regulating conflicts of interest in the relationships between banks, their customers, and hedge funds. These goals, while imposing minimum distortions to market efficiency and competitiveness of US financial institutions, provide benchmarks against which the success or failure of the Volcker Rule should be evaluated.

This article concludes that, with respect to achieving its objectives, the Volcker Rule can only ever be partially successful for several reasons. The first reason relates to the political compromises made during the legislative process, which resulted in extensive exceptions to the Rule. Although backed by sound legal and economic arguments, in many respects, these exceptions render the Volcker Rule toothless. The underlying reason for such a claim lies in the difficulty that will be encountered when trying to distinguish permitted activities from prohibited activities. Since making such determinations will rely on subjective and case-by-case evaluations, conducting such assessments makes adequate enforcement of the Rule too costly and burdensome.

The second reason involves regulatory arbitrage. It is important not to allow prohibited activities to occur anywhere within the entire banking entity and not just within certain of its units. Moreover, prohibited activities are likely to move to the more lightly-regulated shadow banking sector because of increased regulatory costs for banks. Absent certain levels of international coordination, the anticipated regulatory arbitrage could bring the Volcker Rule to its knees.

However, criticism of the Volcker Rule based on the claim that the Rule will reduce liquidity and diversification in financial markets and institutions (and thereby increasing systemic risk) appear to be unfounded. Theoretical and empirical evidence suggests that the alleged economies of scale and scope by mixing banking activities with proprietary and hedge fund-related activities overlook the banking entities' access to implicit and explicit government guarantees. Therefore, the claim that the Volcker Rule would impede the realization of economies of scale and scope in the banking industry has not been strongly supported.

With respect to cross-subsidization concerns, the Volcker Rule and its exceptions strike a reasonable balance between preventing such opportunistic behavior while not stifling investment by banks in start-up private funds. With regard to addressing conflicts of interest, the extensive exceptions in the Volcker Rule, while marginally mitigating them, fall short of providing a conflict-of-interest-free environment for all stakeholders. The limited intervention of the Volcker Rule in addressing conflicts of interest can be explained by the relative success of private-law mechanisms and market discipline in mitigating such concerns.