

TESTIMONY BEFORE
THE UNITED STATES HOUSE OF REPRESENTATIVES

COMMITTEE ON FINANCIAL SERVICES

SUBCOMMITTEE ON
CAPITAL MARKETS, SECURITIES, AND INVESTMENTS

Hearing on
“Examining the Impact of the Volcker Rule on
Markets, Businesses, Investors, and Job Creation”

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March 29, 2017

Chairman and Members of the Committee, thank you for inviting me to testify today regarding the impact of the Volcker Rule¹ on the financial markets and the general economy. My name is Charles Whitehead, and I am a Professor of Law at Cornell University specializing in capital markets, financial institutions and transactions, business organizations, and mergers and acquisitions. Before becoming an academic, I spent 17 years in the private sector and held senior legal and business positions in the financial services industry in New York and Tokyo.

I testify today in favor of repealing the Volcker Rule. A principal goal of the Volcker Rule is minimizing risky trading activities by banks and their affiliates and, consequently, enabling banks to pursue a “traditional” banking business in providing capital to businesses and consumers. What the Rule fails to reflect is change in how credit is provided today, moving from traditional banking to increasing participation by banks in the capital markets. This necessarily involves the banks’ use of their own balance sheets to buy and sell securities as part of a market-making function. Artificially constraining their ability to do so affects the smooth operation of the capital markets.

There is certainly an argument for regulating risky trading activities. But the Volcker Rule addresses the wrong problem in the wrong way. The Volcker Rule was sold to Congress as a response to the 2008 financial crisis, an attempt to reduce risk in banks principally by banning short-term proprietary trading directly by banks and their affiliates and indirectly through investments in hedge funds and private equity funds. But why was restricting short-term proprietary trading a solution to the crisis? The answer is far from apparent and is unsupported by the facts that Congress had at the time. As Treasury Secretary Geithner testified, “most of the losses that were material . . . did not come from [proprietary trading] activities.”²

¹ Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, § 619, 124 Stat. 1376, 1620 (2010) (codified at 12 U.S.C. § 1851 (2014)) (the “Dodd-Frank Act”). The Volcker Rule technically is not a “rule,” but part of the statutory text in the Dodd-Frank Act, implemented in 2013 through final regulations (the “Final Rule”) adopted by The Office of the Comptroller of the Currency, the Federal Reserve, the Federal Deposit Insurance Corporation, the Securities and Exchange Commission, and the Commodity Futures Trading Commission. *See* OCC, Federal Reserve, FDIC, and SEC, Prohibitions and Restrictions on Proprietary Trading and Certain Interests in, and Relationships with, Hedge Funds and Private Equity Funds, 79 Fed. Reg. 5536 (Dec. 10, 2013); CFTC, Prohibitions and Restrictions on Proprietary Trading and Certain Interests in, and Relationships with, Hedge Funds and Private Equity Funds, 79 Fed. Reg. 5808 (Jan. 31, 2014). The Final Rule became effective as of April 1, 2014. The Federal Reserve granted banks and their affiliates an extended conformance period until July 21, 2015. Unless the context otherwise requires, when I refer to the Volcker Rule in this testimony, I mean to refer to the statutory text and its implementing regulations.

² Hearing Before the Congressional Oversight Panel, 111th Cong. (2009) (testimony of Sec. of Treasury Timothy Geithner) (testifying about the causes of the 2008 financial crisis).

Rather, many of the most significant bank losses arose from traditional extensions of credit, especially loans related to real estate.³

I believe it is fair to say that the Rule's proponents were less interested in curing a particular cause of the financial crisis⁴ and more interested in championing the view that commercial banking should be separated from investment banking, particularly proprietary trading and principal investing.⁵ By barring proprietary trading by banks and their affiliates, the Rule's sponsors hoped that utility services, such as taking deposits and making loans, would once again dominate the banking business.⁶ But that view reflected hope over experience. In light of the fluid and evolving nature of the financial markets, it was unlikely that regulation could force a return to the financial sector model of an earlier era when banks and bank lending were kept separate from the capital markets.

What has been the result? The Volcker Rule imposes a static divide – a financial Maginot Line – between short-term proprietary trading and banking, but does so within a world where capital markets and bank loans compete for corporate lending, and fluid financial markets continue to evolve and can sweep around a fixed position.⁷ Changes in the financial markets spurred by the Volcker Rule still expose banks to the kinds of risks the Volcker Rule was intended to minimize or eliminate. Hedge funds and other, less-regulated entities whose activities can affect banks and bank risk taking picked up the proprietary trading that exited banks and their

³ *Id.* Chairman Volcker himself acknowledged that the restrictions in the Volcker Rule would not have prevented the financial crisis: “It certainly would not have solved the problem at AIG or solved the problem with Lehman Brothers, alone. It was not designed to solve those particular problems.” Hearing Before the S. Comm. On Banking, Hous. & Urban Affairs, 111th Cong. (2010) (statement of Paul A. Volcker, Chairman, President’s Econ. Recovery Adv. Bd.). To the extent trading contributed to bank losses, short-term proprietary activity may have been less of a concern than the losses suffered from longer-term holdings of risky asset-based (primarily mortgage-backed) securities not covered by the Volcker Rule. See Matthew Richardson et al., *Large Banks and the Volcker Rule*, in REGULATING WALL STREET: THE DODD-FRANK ACT AND THE NEW ARCHITECTURE OF GLOBAL FINANCE 181, 203-04 (linking bank losses in the 2008 financial crisis to the banks’ strategy of holding mortgage-backed securities as long-term investments).

⁴ See Kim Dixon & Karey Wutkowski, *Volcker: Proprietary Trading Not Central to Crisis*, REUTERS, Mar. 30, 2010 (reporting that Chairman Volcker, although still supporting the ban on proprietary trading, conceded it was not central to the financial crisis).

⁵ See DAVID SKEEL, THE NEW FINANCIAL DEAL 86-87 (2011) (noting that, due to changes in market practices and technology, proprietary trading has become crucial to investment banking).

⁶ See 156 CONG. REC. S5894 (daily ed. Jul. 15, 2010) (statement of Sen. Jeff Merkley) (describing the rationale for the Dodd-Frank Act).

⁷ See Charles K. Whitehead, *Reframing Financial Regulation*, 90 B.U. L. REV. 1, 2-5, 36-40 (2010) (describing changes in the financial markets relating to market participants and financial instruments).

affiliates.⁸ Moreover, in order to make up for losses in revenues, banking entities⁹ shifted their risk-taking activities to other businesses – increasing their risk taking,¹⁰ potentially through activities with which they were less familiar than the proprietary trading they were compelled to abandon.¹¹

The problems around the Volcker Rule are exacerbated by practical difficulty in implementing the Rule itself. What is proprietary trading, and how is it distinguished from market-making? When implementing the Rule, the regulators noted that it was difficult to define certain permitted activities because it “often involves subtle distinctions that are difficult both to describe comprehensively within regulation and to evaluate in practice.”¹² Specifically, in the Final Rule’s proposing release, the regulators found that “[a]lthough the purpose and function of [market making activities and proprietary trading] are markedly different . . . clearly distinguishing these activities may be difficult in practice.”¹³ Likewise, industry participants have complained that the lack of definitional bright lines makes it difficult for banks to comply with the Rule.¹⁴ As a result, banking entities have had to incur substantial costs in order to implement cumbersome supervisory and compliance regimes;¹⁵ and in order to avoid stepping over the line, many have pulled back from permissible market-making activities.¹⁶ The resulting increase in

⁸ See Charles K. Whitehead, *The Volcker Rule and Evolving Financial Markets*, 1 HARV. BUS. L. REV. 39, 46 (2011) (noting that banks will continue to be exposed to proprietary trading through their reliance on less-regulated hedge funds as one means to hedge credit risk).

⁹ The term “banking entity” is defined *infra* at note 20.

¹⁰ See Jussi Keppo & Joseph Korte, *Risk Targeting and Policy Illusions – Evidence from the Announcement of the Volcker Rule*, MGMT. SCIENCE 2-3 (Articles in Advance, 2016) (concluding that overall bank risk levels did not decline after announcement of the Volcker Rule); Sohhyun Chung et al., *The Impact of Volcker Rule on Bank Profits and Default Probabilities 2-3* (Working Paper, June 19, 2016) (finding that the Volcker Rule raised the default probabilities of 34 U.S. banks by decreasing the size of the liquid trading book and increasing the illiquid banking book).

¹¹ See *infra* notes 52-56 and accompanying text.

¹² See Prohibition and Restrictions on Proprietary Trading and Certain Interests in, and Relationships With, Hedge Funds and Private Equity Funds, 68 Fed. Reg. 68,849 (Nov. 7, 2011).

¹³ 68 Fed. Reg. 68,869.

¹⁴ See, e.g., Deloitte, *The Volcker Rule’s Impact on Infrastructure 2-3* (Jul. 2011) (noting that “[c]onstructing tests that definitively delineate between [proprietary trading and permitted activities] may be quite difficult” and that banking entities “will require robust infrastructure and processes to monitor and comply.”).

¹⁵ See Robin Greenwood et al., *The Financial Regulatory Reform Agenda in 2017 11-12* (2017) (Harv. Bus. Sch. Project on Behav. Fin. and Fin. Stability, Working Paper 2017-9).

¹⁶ See Jack Bao et al., *The Volcker Rule and Market-Making in Times of Stress 10* (Fed. Res. Fin. and Econ. Disc. Series 2016-102) (finding that the illiquidity of stressed bonds has increased after adoption of the Volcker Rule); see also Darrell Duffie, *Market Making Under the Proposed Volcker Rule 4-6* (Stan. Univ. Working Paper, Jan. 16, 2012) (stating that the Volcker Rule will reduce the overall quality and capacity of market-making services provided to U.S. investors).

investors' execution costs and the decline in market liquidity means that investors will demand higher yields on new bond issuances. The challenge is not how much capital is raised, but the incremental cost to issuers of raising it – a cost that affects Main Street as much as it affects Wall Street.¹⁷

The result is costly regulation with limited upside and the potential for greater downside.¹⁸ There are legitimate reasons to be concerned over the risks associated with a bank's trading operations. But those risks can be more effectively addressed through other means, such as imposing capital charges on a bank's trading books and the traditional bank regulators' focus on risk management and assessing a bank's safety and soundness.¹⁹ For those reasons, the Volcker Rule should be repealed.

Background

The Volcker Rule is intended to reduce risk taking by U.S. “banking entities” – essentially deposit-taking commercial banks, companies that control those banks, and any affiliate of any of the foregoing.²⁰ It does so by prohibiting a banking entity from “engag[ing] in proprietary trading” of securities, derivatives, commodity futures, and options on those instruments for their own account or “acquir[ing] or retain[ing] any equity, partnership, or other ownership interest in or sponsor[ing] a hedge fund or private equity fund.”²¹

¹⁷ See *infra* notes 71-72 and accompanying text.

¹⁸ Professor John Coates has argued that the Volcker Rule is a structural law that is designed to change the organizational culture of banks by, among other things, reducing bankers' incentives to take risk and reducing the authority of traders. See John C. Coates IV, *The Volcker Rule as Structural Law: Implications for Cost-Benefit Analysis and Administrative Law*, 10 CAP. MARKETS L.J. 447, 454 (2015). In light of its non-quantifiable goals, and the difficulty of anticipating private market response to the new regulatory structure, Professor Coates argues that the Volcker Rule should not be subject to a cost-benefit analysis. *Id.* at 468. Difficulty in assessing private market responses to changes in financial regulation is not uncommon, and the Volcker Rule is no exception. See Charles K. Whitehead, *The Goldilocks Approach: Financial Risk and Staged Regulation*, 97 CORNELL L. REV. 1267, 1272-73, 1299-1302 (2012). Nevertheless, without addressing Professor Coates' specific contention – namely, that structural law should never be subject to a formal cost-benefit analysis – when new regulation like the Volcker Rule imposes substantial costs on market participants, and the benefits are vague or open to interpretation, serious consideration should be given to whether those costs are justified by the likely merits. See *infra* note 72 and accompanying text.

¹⁹ See Greenwood et al., *supra* note 15, at 12.

²⁰ The definition of “banking entity” appears at 12 U.S.C. § 1851(h)(1). The Volcker Rule also limits similar activities by certain systemically important financial institutions supervised by the Federal Reserve Board. 12 U.S.C. § 1851(a)(2).

²¹ 12 U.S.C. § 1851(a)(1).

Proprietary Trading: What's in a Name?

Traditionally, proprietary trading referred to activities by trading desks that were allocated capital to invest for the firm's own account as opposed to other functions, such as assisting the firm in its asset-liability management.²² The Volcker Rule's definition is both broader and narrower. The Rule is broader, because as implemented, it prohibits a banking entity from engaging as principal in *any* purchase or sale of the designated financial instruments, unless the activity is excluded from the definition of "proprietary trading" or an exemption is available. It is narrower, because "proprietary trading" principally covers the buying and selling of financial instruments for near-term gain; it does not extend to longer-term proprietary holdings.²³

The problem, of course, is distinguishing proprietary trading activity from other trading that uses a banking entity's balance sheet, and distinguishing near-term from long-term trading activities. Generally speaking, trading activity is classified as proprietary if it satisfies one of three tests set out in the Final Rule (relating to the trade's purpose (the Purpose Test), its treatment under the market risk capital rules (the Market Risk Capital Rule Test), and whether the trade relates to the banking entity's status as a dealer, swap dealer, or security-based swap dealer (the Status Test)) and is not otherwise excluded from the proprietary trading definition.²⁴

Of the three, the Purpose Test is the most ambiguous – principally due to its reliance on the "purpose" of the trade in classifying whether it is proprietary or not. The purchase or sale of a financial instrument will be considered near-term and proprietary (and, therefore, subject to the Volcker Rule, absent an exemption) if it is principally for the purpose of short-term resale, benefiting from actual or expected short-term price movements, realizing short-term arbitrage profits, or hedging one or more positions resulting from purchases or sales of financial instruments in one of the foregoing transactions.²⁵

The Final Rule includes a rebuttable presumption that any financial instrument held for fewer than 60 days (or whose financial risk is substantially transferred

²² See Camille L. Orme & Whitney A. Chatterjee, *The Volcker Rule*, in REGULATION OF FOREIGN BANKS & AFFILIATES IN THE UNITED STATES (9th ed. 2016, Randall D. Guynn, ed.).

²³ Specifically, the activity must be for the "trading account" of the banking entity. A "trading account" is a set of transactions "used for acquiring or taking positions in the [covered financial instruments] 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)" or as otherwise determined by applicable regulation. 12 U.S.C. § 1851(h)(6).

²⁴ A description of the three tests can be found in Orme & Chatterjee, *supra* note 22, at 1317-19.

²⁵ Final Rule § __.3(b)(1)(i).

within 60 days) meets the Purpose Test and, therefore, is proprietary. The presumption can be rebutted if, based on the facts and circumstances, the banking entity can demonstrate that the instrument was not purchased or sold for any of the purposes covered by the Purpose Test.²⁶ That means that two identical trades may be treated differently based on whether or not the banking entity is able to rebut the presumption that they are proprietary. Doing so requires some evidence of the trade's purpose and the trader's intentions – difficult to establish, particularly in light of the limited regulatory guidance on how the presumption can be rebutted in practice.²⁷

Market-Making: What's in a Name? Part II

Among the proprietary trading exceptions, market-making is perhaps the most important.²⁸ It mirrors a classic bank function – providing liquidity to lenders without affecting the borrower's access to a stable source of capital – relying on the capital markets rather than traditional banking channels to do so. The exception was included in light of the importance of market-making to well-functioning capital markets and, in turn, the general economy.²⁹

Market-making supports secondary trading liquidity, comprised of market liquidity and funding liquidity. Market liquidity refers to the ease by which an investor can sell a portfolio asset, like a stock or a bond. An asset's market liquidity is low when it becomes relatively difficult to raise money by selling the asset – where, in effect, there are sellers but relatively few buyers, causing a drop in the sale price. Anticipating that risk, investors are more likely to demand a higher return on their investment; the greater the risk, the greater the overall cost of raising capital.

Funding liquidity refers to the ability of investors and other market participants to finance their investment portfolios. Many investors use the assets they buy as collateral against short-term borrowings, often structured as sales at a discount (or

²⁶ See Prohibitions and Restrictions on Proprietary Trading and Certain Interests in, and Relationships with, Hedge Funds and Private Equity Funds, 79 Fed. Reg. 5535, 5550 (Jan. 31, 2014).

²⁷ See Orme & Chatterjee, *supra* note 22, at 1318 n.78.

²⁸ 12 U.S.C. § 1851(d)(1)(B). Other exceptions include trading in U.S. Treasuries and other government instruments, 12 U.S.C. § 1851(d)(1)(A), risk-mitigating hedging, *id.* §1851(d)(1)(C), trading on behalf of customers, *id.* § 1851(d)(1)(D), and proprietary trading by non-U.S. banking entities occurring solely outside the United States, *id.* § 1851(d)(1)(H). Even then, the statutory exceptions to the Volcker Rule are subject to broad prudential backstop provisions that prevent banking entities from engaging in activity that would “involve or result in a material conflict of interest,” “result, directly or indirectly, in a material exposure by the banking entity to high-risk assets or high-risk trading strategies,” “pose a threat to the safety and soundness of such banking entity,” or “pose a threat to the financial stability of the United States.” 12 U.S.C. § 1851(d)(2)(A). See also Orme & Chatterjee, *supra* note 22, at 1380-83.

²⁹ 79 Fed. Reg. 5576, 5581.

a “haircut”) and repurchases in the “repo” market. The size of the haircut is a reflection of the lender’s ability to sell the collateral if the borrower defaults. Thus, a decline in market liquidity is likely to increase the haircut. It also limits how much the investor can borrow and, therefore, its business and operations – most likely prompting investors to demand an even greater return on the assets they buy.³⁰

Stated differently, market and funding liquidity are two sides of the same coin. If market liquidity drops, the resulting rise in haircuts will lower the amounts available to buy new assets, in turn, prompting a further drop in market liquidity. This feedback loop is precisely what occurred during the 2008 financial crisis, resulting in a rapid decline in bond market liquidity.³¹

Even outside of a crisis, the relationship between market and funding liquidity can limit the amount of new capital that is available to end-users – those who rely on the capital markets to raise funds – or increase the overall cost of funding. More to the point, investors purchase securities on the basis of there being an adequate secondary market for resale, which largely depends on market-making activities. Unless an alternative source of liquidity appears, a decline in market-making is likely to increase portfolio risk and either reduce returns to investors or increase the issuer’s cost of capital, or both.³²

In order to qualify as market-making, the Volcker Rule requires that the trading desk that manages the exposure “routinely” be ready to purchase and sell the financial instruments for which it is making a market and be able to quote, purchase and sell, or otherwise enter into long and short positions in, those types of financial instruments for its own account, in commercially reasonable amounts, and throughout market cycles on a basis appropriate for the liquidity, maturity, and depth of the market for the relevant financial instruments.³³ In addition, the amounts, types, and risks of the financial instruments in the trader’s market-making inventory must be designed not to exceed, on an ongoing basis, the reasonably expected near-term demands of clients, customers, or counterparties, based on the liquidity, maturity, and depth of the market for the relevant financial instruments, and a demonstrable

³⁰ See Markus K. Brunnermeier & Lasse Heje Pedersen, *Market Liquidity and Funding Liquidity*, 22 REV. FIN. STUD. 2201, 2201-07 (2009);

³¹ See *id.* at 2203-05.

³² See *infra* notes 69-72 and accompanying text; see also Duffie, *supra* note 16, at 18-19.

³³ Final Rule § __.4(b).

analysis of historical customer demand,³⁴ the current inventory of financial instruments, and market and other factors regarding the amount, types, and risks of the financial instruments.

Compliance Complexity

Each banking entity is required to institute a compliance program that is “reasonably designed to ensure and monitor compliance” with the Volcker Rule.³⁵ The scope of each compliance program will vary based on “the types, size, scope and complexity of activities and business structure of the banking entity.”³⁶ The program requirements are organized into five tiers, based on the banking entity’s asset size and the volume of its trading activities. In general, however, for banking entities that conduct proprietary trading, each compliance program requires the banking entity to implement a wide array of policies and procedures, training, internal controls, and testing that may be enterprise-wide (to the extent applicable to one or more trading desks) or implemented for a particular business unit.

A banking entity must also report certain quantitative measures of its trading activities to the regulators if its trading assets and liabilities meet certain thresholds.³⁷ Those trading metrics must be calculated each trading day at the trading desk level for each desk that relies on, among others, the exemption for market-making.³⁸ The Final Rule includes detailed directions on how to calculate the metrics, including risk and position limits and usage, risk factor sensitivities, Value-at-Risk and Stress VaR, comprehensive profit and loss attribution, inventory turnover, inventory aging, and the ratio of customer-facing trades to trades with non-customers.³⁹ Those metrics are not intended as a means to assess compliance with the Volcker Rule, but rather are used to monitor trends and identify activities for further review.⁴⁰ Additional metrics may be needed in order to implement an effective compliance program.⁴¹

³⁴ The types of information that could be used in this analysis include: “(i) [r]ecent trading volumes and customer trends; (ii) trading patterns of specific customers or other observable customer demand patterns; (iii) analysis of the banking entity’s business plan and ability to win new customer business; (iv) evaluation of expected demand under current market conditions compared to prior similar periods; (v) schedule of maturities in customers’ existing portfolios; and (vi) expected market events, such as an index rebalancing, and announcements.” 79 Fed. Reg. 5610 to 5611.

³⁵ Final Rule § __.20(a).

³⁶ *Id.*

³⁷ *Id.* § __.20(d).

³⁸ *Id.* Appendix A §§ I, II.

³⁹ See also Orme & Chatterjee, *supra* note 22, at 1386-87 (summarizing the required metrics).

⁴⁰ 79 Fed. Reg. 5765.

⁴¹ Final Rule Appendix A § I; 79 Fed. Reg. 5761.

Out of the Frying Pan Into the Frying Pan

Not surprisingly, much of the proprietary trading activity – often, internal hedge funds and walled-off speculative trading desks – was sold or pushed out of banking entities in anticipation of the Volcker Rule being implemented.⁴² In many cases, the trading activity moved to less-regulated hedge funds.⁴³

A key question is whether moving those risk-taking activities to hedge funds insulated banking entities from the problems the Volcker Rule was intended to address. There are a number of reasons to believe it does not.

Seven (or Fewer) Degrees of Separation

It is difficult today to wall-off one sector of the financial markets from another. Before the 2008 financial crisis, standard risk measurement methods underestimated how closely commercial banks, investment banks, hedge funds, and insurance companies are linked. As a result of that linkage, when financial conditions worsen for one type of institution, the effects can spread quickly to others. Spillovers among financial institutions may be small in times of financial stability, but quickly escalate when the system is under stress, particularly among certain types of entities. Key among them are hedge funds. One recent study found that “hedge funds may

⁴² See MICHAEL S. BARR, HOWELL E. JACKSON & MARGARET E. TAHYAR, FINANCIAL REGULATION: LAW AND POLICY 684 (2016).

⁴³ See Sam Jones, *More Goldman Traders to Exit for Funds*, FIN. TIMES, Jan. 9, 2011 (reporting that senior members of Goldman Sachs’ last big proprietary trading desk left to launch a private hedge fund); Aaron Lucchetti, *Morgan Stanley Team to Exit in Fallout from Volcker Rule*, WALL ST. J., Jan. 11, 2011, at C1 (reporting that Morgan Stanley’s proprietary trading unit will leave to form an independent trading firm); see also *Private Equity Groups Diversify*, FIN. TIMES, Dec. 20, 2010 (reporting that private equity firms are capitalizing on the forced divestiture of proprietary trading units by purchasing stakes in newly-created funds launched by those units). To be sure, the Dodd-Frank Act expanded hedge fund regulation by, among other things, eliminating the private advisor exemption from the Investment Advisers Act of 1940 and, with certain exceptions, requiring private fund advisers to register with the Securities and Exchange Commission. Dodd-Frank Act § 403. As a practical matter, however, the new requirements did little to affect the hedge fund industry, since many of the largest advisers were already registered. About 70% of hedge fund assets were managed by advisers that had voluntarily registered. See *After Dodging Many Bullets, Hedge Funds Are Back in Regulators’ Sights*, KNOWLEDGE@WHATRON (Mar. 18, 2009) (noting that many hedge funds were willing to voluntarily register in order to attract institutional investor funds). Moreover, hedge funds typically are not subject to the prudential financial regulation that helps police the amount of risk that a bank can incur. See Whitehead, *supra* note 7, at 15-16, Appendix B.

be the most important transmitters of shocks during crises, more important than commercial banks or investment banks.”⁴⁴ The reason relates to the trading strategies of hedge funds and their interconnectedness with other entities, including banks. Hedge funds are often highly leveraged and, in times of crisis, are likely to be forced to liquidate assets at fire-sale prices, causing hedge funds as a group to sustain heavy losses. Consequently, under some circumstances, hedge funds may perform in the same way, irrespective of management style, causing an overall decline in hedge fund stability at the same time.⁴⁵ This can lead to defaults that threaten banks directly as counterparties or creditors, and indirectly through the effect of the hedge funds’ fire sales on the credit market.⁴⁶ Moreover, to the extent hedge funds provide a means for banks to outsource credit risk (through, for example, credit default swaps that transfer bank credit risk, often to hedge fund counterparties), a problem in the hedge fund industry can directly affect how banks manage risk precisely at the time they most need it, during a financial crisis.⁴⁷

The Volcker Rule is also intended to suppress a bank’s risk-taking “culture”.⁴⁸ Its approach, however, presupposes a financial industry that no longer exists. Whether or not a bank has a risk-taking culture increasingly depends less on the CEO or the entity itself, and more on the opportunities for employment that exist elsewhere within the financial markets, including in hedge funds.⁴⁹ The focus on entities misses the effect on compensation (and risk-taking) of the competition among financial firms to hire good employees. That effect is significant. In a competitive market, firms are expected to adjust compensation in line with market demand, assessing and paying employees based on their relative ability to generate returns. In principle, that competition should align employee and employer incentives, allo-

⁴⁴ Reint Gropp, *How Important Are Hedge Funds in a Crisis?* 1-2 (FRBSF Economic Letter 2014-11, Apr. 14, 2014).

⁴⁵ See Nicole M. Boyson et al., *Hedge Fund Contagion and Liquidity Shocks*, 65 J. FIN. 1789, 1814-15 (2010) (linking contagion in the hedge fund industry to liquidity shocks).

⁴⁶ See Gropp, *supra* note 44, at 2-3.

⁴⁷ See Whitehead, *supra* note 8, at 66.

⁴⁸ Chairman Volcker commented that one of the policy purposes of the Volcker Rule was to address a banking “culture” that was “manifested in the huge incentives to take risk inherent in the compensation practices for the traders. Can one group of employees be so richly rewarded, the traders, for essentially speculative, impersonal, short-term trading activities while professional commercial bankers providing essential commercial banking services to customers, and properly imbued with fiduciary values, be confined to a much more modest structure of compensation?” Paul A. Volcker, *Commentary on the Restrictions on Proprietary Trading by Insured Depository Institutions* 2 (Feb. 13, 2012).

⁴⁹ See Simone M. Sepe & Charles K. Whitehead, *Paying for Risk: Bankers, Compensation, and Competition*, 100 CORNELL L. REV. 655, 658-60 (2015) (finding that greater risk taking can increase short-term bank profits and, in turn, employee compensation, potentially at the expense of long-term bank value, so long as the employee can depart before any losses materialize).

cating the best employees to the most profitable firms. In the case of banks, however, combining performance-based pay with competition – where employees can move from one employer to the next – has had perverse results. Greater risk taking can increase short-term bank profits and the amount an employee is paid, potentially at the expense of longer-term bank value.⁵⁰ Employees, therefore, have an incentive to incur risk so long as they can depart for a new employer before any longer-term losses (and corresponding drop in pay) materialize. Competition results in an upward spiral in pay and limits the bank’s ability to efficiently adjust compensation to reflect risk taking and long-term outcomes.⁵¹ Stated differently, even if proprietary traders move to a different entity, a bank’s executives are still trapped into providing risk-prone incentives to employees due to the pressures that arise from the market-wide competition for talent.

Unintended Consequences

A recent study focused on the Volcker Rule’s effect on the investment, dividend, and recapitalization decisions, and also the profits and default probabilities, of 34 banks. It found that the Volcker Rule raised bank default probabilities. It did so by decreasing the bank’s trading portfolio and increasing its illiquid banking portfolio, which is more difficult to manage.⁵² Another recent study found that announcement of the Volcker Rule caused banks to reduce the size of their trading portfolios, but did not reduce their overall risk taking. To keep their risk targets, banks simply raised the trading risk of their remaining portfolios.⁵³

This shift in bank risk taking should not be a surprise. It has happened before. When first introduced, risk-based capital requirements (and later increases in those requirements) had disparate effects on banks, decreasing a bank’s risk taking in some cases but increasing it in others. Managers who were risk-averse chose to trade off

⁵⁰ Although banking has evolved, a portion of a bank’s losses may not be realized until the long term due to its investment in illiquid assets with maturities that are longer than a bank’s demand deposits. See Jonathan R. Macy & Geoffrey P. Miller, *Deposit Insurance, the Implicit Regulatory Contract, and the Mismatch in the Term Structure of Banks’ Assets and Liabilities*, 12 YALE J. ON REG. 1, 7 (1995). The Treasury, the Federal Reserve, and the Federal Deposit Insurance Corporation also noted the effect of compensation on bank risk prior to the financial crisis: “Flawed incentive compensation practices in the financial industry were one of many factors contributing to the financial crisis that began in 2007. Banking organizations too often rewarded employees for increasing the organization’s revenue or short-term profit without adequate recognition of the risks the employees’ activities posed to the organization.” Guidance on Sound Incentive Compensation Policies, 75 Fed. Reg. 36,395, 36,396 (June 25, 2010).

⁵¹ See Sepe & Whitehead, *supra* note 49, at 659.

⁵² See Chung et al., *supra* note 10, at 3 (concluding that “in the default probability sense, the Volcker Rule is not effective”).

⁵³ See Keppo & Korte, *supra* note 10, at 2-3.

profits for decreased risk. Managers who chose to maximize a bank's expected profits shifted investments into higher-risk portfolios. A 1998 study found that banks reacted differently depending on their capital positions and the particular regulatory requirements. Specifically, using a cross-section of bank data from 1984 to 1993, the study found a U-shaped relationship tied to changes in capital position and risk taking.⁵⁴ Severely undercapitalized banks were likely to take on significant risk – a moral hazard problem – whose cost was largely borne by the Federal Deposit Insurance Corporation (“FDIC”). Risk-taking incentives declined as capital increased, partly because banks bore the full cost of a loss if FDIC insurance was not triggered. Yet, risk taking increased again at higher capital levels as bank managers, whose banks were now sufficiently capitalized to protect against insolvency, chose to invest in riskier assets in order to offset higher costs.⁵⁵ The point is that, like the change in risk taking that occurred when risk capital requirements were introduced, a bank's managers may very well shift risk-taking in response to the Volcker Rule in order to offset the loss of the proprietary trading business.⁵⁶ The resulting increase in default probabilities is an unintended consequence.

All of the foregoing reflects the problem of having a static divide in a liquid market. Physically removing proprietary traders from banking entities may minimize the direct effect of their activities. But, in today's world, the indirect effects can be just as significant.

A Rose By Any Other Name

It was clear from the outset that implementing the Volcker Rule would be a challenge. One of the greatest hurdles has been identifying what constitutes proprietary trading in the first place. The reason for the challenge is the way in which

⁵⁴ See Paul Calem & Rafael Rob, *The Impact of Capital-Based Regulation on Bank Risk-Taking*, 8 J. FIN. INTERMEDIATION 317, 318-20 (1999).

⁵⁵ *Id.* at 318-20, 329-31.

⁵⁶ In fact, this is what also occurred following adoption of the Gramm-Leach-Bliley Act of 1999, Pub. L. No. 106-102, § 101, 113 Stat. 1338, 1341 (codified as amended in scattered sections of 12 and 15 U.S.C.) (the “GLB Act”). Even though the wall between bank and non-bank activities had eroded prior to passage of the GLB Act, it heralded the ability of commercial banks to compete directly with traditional investment banks in the capital markets. Commercial banks gained a sizeable share of the business, very often leveraging their ability to extend credit through traditional lending in order to secure capital markets mandates. To offset lost revenues, investment banks moved into new business lines, and grew the amounts they borrowed to finance them, taking on new risks with which they had only limited prior experience. For investment banks, combining the two – new (and often greater) risk-taking and leverage – was lethal and eventually triggered the 2008 financial meltdown. See Charles K. Whitehead, *Size Matters: Commercial Banks and the Capital Markets*, 76 OHIO ST. L.J. 765, 775-802 (2015).

the Volcker Rule defines proprietary trading, in particular under the Purpose Test.⁵⁷ It is inherently difficult to implement regulations that are tied to a trader's intent. How can this be objectively measured? Federal Reserve Governor Jay Powell recently commented, "What the current law and rule do is effectively force you to look into the mind and heart of every trader or every trade to see what intent is. Is it proprietary trading or something else? If this is the test you set for yourself, you are going to wind up with tremendous expense and burden."⁵⁸ The result of tying proprietary trading to intent has been regulation that is overly complex and compliance programs that are costly to implement and administer⁵⁹ and often inadvertently capture the beneficial activities that are expressly permitted by the Volcker Rule.⁶⁰

Quantifying Intent?

Recall that the Final Rule requires banking entities to report quantitative metrics on each trading desk.⁶¹ Regulators have been collecting that data since July 2014, one year prior to the Volcker Rule's effective date. When adopting the Final Rule, the regulators committed to "evaluate the data collected during the compliance period both for its usefulness as a barometer of impermissible trading activity and excessive risk-taking and for its costs."⁶² To date, the regulators have not announced the status of any analysis or any results, nor have they commented on how the data may be used to enforce compliance with the Rule. The silence is troubling, and may reflect the fact that the data is overwhelming, varying across asset classes, and from

⁵⁷ See *supra* notes 24-27 and accompanying text.

⁵⁸ Steve Matthews, *Fed's Powell Urges Congress to Take Another Look at Volcker Rule*, BLOOMBERG.COM (Jan. 7, 2017).

⁵⁹ The Financial Stability Oversight Council (the "FSOC") studied and provided recommendations on the Volcker Rule before the Final Rule was adopted. See FIN. STABILITY OVERSIGHT COUNCIL, STUDY & RECOMMENDATIONS ON PROHIBITIONS ON PROPRIETARY TRADING & CERTAIN RELATIONSHIPS WITH HEDGE FUNDS & PRIVATE EQUITY FUNDS (2011) (the "FSOC Study"). Among other things, the FSOC Study noted that banking entities would be required to develop new regulatory and supervisory tools beyond their current risk management systems. See *id.* at 31 (noting that current risk management frameworks, because they are designed principally to limit losses, will need to be redeveloped to prioritize compliance with the Volcker Rule's prohibitions). Regulators, as well, need significant resources to hire and train staff with quantitative and market expertise, to develop and analyze data, and to review information in order to identify prohibited activities. See *id.* at 43-44. In addition, banking entities are now required to collect and test new data, including metrics to assess industry-wide trading on a desk-by-desk basis. See *id.* at 42.

⁶⁰ See *infra* notes 64-65 and accompanying text; see also Greenwood et al., *supra* note 15, at 11-12.

⁶¹ See *supra* notes 37-41 and accompanying text.

⁶² 79 Fed. Reg. 5772.

firm to firm and even desk to desk, suggesting that the Volcker Rule as implemented by the regulators is simply too complex for the regulators to effectively monitor.⁶³

Romulus and Remus: Proprietary Trading and Market-Making

A particular difficulty has been distinguishing permissible activities, like market-making, from impermissible proprietary trading. As the Volcker Rule's notice of proposed rulemaking described:⁶⁴

It may be difficult to distinguish principal positions that appropriately support market making-related activities from positions taken for short-term, speculative purposes. In particular, it may be difficult to determine whether principal risk is been retained because (i) the retention of such risk is necessary to provide intermediation and liquidity services for a relevant financial instrument or (ii) the position is part of a speculative trading strategy designed to realize profits from price movements in retained principal risk.

In other words, although the intentions around market-making and proprietary trading are different, the activities are difficult to distinguish operationally. "Market making is inherently a form of proprietary trading. A market maker acquires a position from a client at one price and then lays off the position over time at an uncertain average price. The goal is to 'buy low, sell high.' In order to accomplish this goal on average over many trades, with an acceptable level of risk for the expected profit, a market maker relies on his expectation of the future path of market prices."⁶⁵

One requirement for market-making is meeting reasonably expected near-term customer demands.⁶⁶ But predicting future demand can be difficult, and so market-makers may hesitate to acquire financial instruments in advance of an anticipated (but not guaranteed) rise. Likewise, it may be difficult to respond to a rapid pop-up in demand that exceeds a banking entity's internal compliance metrics. A trade that exceeds those limits "should not be permitted simply because it responds

⁶³ See Lee Reiners, *Killing the Volcker Rule*, THE FINREG BLOG (Jan. 11, 2017). To the extent regulators do adopt metrics to separate permissible from impermissible activities, they must be sensitive to differences across firms – that potentially could result in arbitrage opportunities – as well as the need to adjust those metrics over time in order to reflect the changes in customer-oriented trading that are likely to occur.

⁶⁴ Prohibitions and Restrictions on Proprietary Trading and Certain Interests in, and Relationships with, Hedge Funds and Private Equity Funds, 76 Fed. Reg. 68,846, 68,869 (Nov. 7, 2011).

⁶⁵ Duffie, *supra* note 16, at 3-4.

⁶⁶ 12 U.S.C. § 1851(d)(1)(B).

to customer demand. Rather, a banking entity's compliance program must include escalation procedures that require review and approval of any trade that would exceed one or more of a trading desk's limits, demonstrable analysis that the basis for any temporary or permanent increase to one or more of a trading desk's limits is consistent with the requirements of this near term demand requirement and with the prudent management of risk by the banking entity, and independent review of such demonstrable analysis and approval."⁶⁷ As a result, market-makers are likely to find it difficult to respond to rapid rises in customer demand. And dealers who fear violating the Volcker Rule may choose to forgo legitimate market-making because they are unable to properly manage their inventory. Ambiguity as to what is legal market-making and what is prohibited proprietary trading may push banking entities toward more conservative trading strategies.⁶⁸

The result is less market liquidity. In fact, a recent study concluded that bond market liquidity around ratings downgrades has deteriorated following adoption of the Volcker Rule. Alarming, the deterioration around those events has been as high during the post-Volcker Rule period as it was during the 2008 financial crisis. Consequently, the Volcker Rule may have serious consequences for the functioning of the bond markets during times of stress, precisely when liquidity is needed the most.⁶⁹

Of course, entities not subject to the Volcker Rule may step in as market-makers. It is unclear, however, whether non-Volcker Rule dealers will be able to commit sufficient capital to make up the shortfall.⁷⁰ Hedge funds, as investors, may be subject to the same market fluctuations that their counterparties hope to mitigate, meaning that they are more likely not to buy or sell instruments at the time a market-maker is most needed. The same is true for insurance companies and asset managers who, as investors, are not traditionally in the business of making a market in the instruments in which they invest.

⁶⁷ 79 Fed. Reg. 5612.

⁶⁸ See Duffie, *supra* note 16, at 4.

⁶⁹ See Bao et al., *supra* note 16, at 29. The Division of Investment Management of the Securities and Exchange Commission also noted changes in the bond markets following adoption of the Volcker Rule: "This apparent reduction in market-making capacity may be a persistent change, to the extent it is resulting from broader structural changes such as fewer proprietary trading desks at broker-dealers and increased regulatory capital requirements at the holding company level. A significant reduction in deal market-making has the potential to decrease liquidity and increase volatility in the fixed income markets." Securities and Exchange Commission, Division of Investment Management, IM Guidance Update (Jan. 2014).

⁷⁰ See *id.* at 23 ("Volcker-affected dealers tend to be larger than non-Volcker dealers and handled 93% of dealer-customer volume around stress events in the pre-[financial] crisis period.").

To date, this new participation has not been enough to offset the decreased liquidity in bond trading.⁷¹ The resulting increase in investors' execution costs and the loss of market liquidity means that investors will demand higher yields on new bond issuances. The challenge is not how much capital is raised, but the incremental cost to issuers of raising it. The higher cost of new capital affects Main Street as much as it affects Wall Street. As a result, "all investors and savers will be affected. And investors and savers are not just large, complex financial institutions, but include workers whose pension funds and 401(k)'s invest in these securities. Families will have less access to credit and thus less ability to buy homes, cars, and put children through college. Businesses will find it harder to borrow, which will make it harder for them to do research and development, make capital investments, and create jobs. Asset prices will be pushed down, which will punish investors and savers. It is not clear what problem this rule is meant to solve, making it likely that this aspect of the new regulatory regime for large, complex financial institutions strikes a poor tradeoff between the gains from the regulation and the impairment to markets and overall economic vitality."⁷²

A Few Words About Funds

The Volcker Rule restricts banking entities from sponsoring or investing in private equity funds and hedge funds, except under limited circumstances. The concern was that banking entities could continue to engage in proprietary trading through affiliated funds without those provisions. The restrictions were also meant to address reputational and market pressures that firms felt during the financial crisis to make investors whole or invest more capital into funds they had sponsored.⁷³

In defining hedge funds and private equity funds, the Volcker Rule references two exemptions, §§ 3(c)(1) and 3(c)(7), from the definition of "investment company" under the Investment Company Act of 1940.⁷⁴ Although most hedge

⁷¹ See *id.* at 29.

⁷² Phillip L. Swagel, Detecting and Avoiding Future Problems in the New Regulatory Regime (Dec.8, 2011), <http://blogs.rhsmith.umd.edu/financialpolicy/2011/12/> (excerpt from the testimony of Phillip L. Swagel, Fellow at the University of Maryland Center for Financial Policy and former Treasury official, before the Comm. on Banking, Housing, and Urban Affairs, Subcomm. on Fin. Inst. and Consumer Protection, Dec. 7, 2011). Professor Duffie at Stanford has raised a similar concern. "Homeowners, businesses, and some municipalities would face higher borrowing costs. Firms would face higher costs for raising new capital. These increased costs would occur directly in the form of higher price impacts at the point of financing, and indirectly from the lower appetite of investors to own securities that would trade in thinner and more volatile secondary markets." Duffie, *supra* note 16, at 19.

⁷³ See BARR, JACKSON & TAHYAR, *supra* note 42, at 685.

⁷⁴ 12 U.S.C. § 1851(h)(2).

funds and private equity funds rely on one of those exemptions, the references are overbroad and inadvertently pick up a range of vehicles outside what was originally anticipated.⁷⁵

To the extent the ban on proprietary trading is repealed, the limitation on investing in or sponsoring hedge funds and private equity funds should be repealed as well. After all, as described above, short-term proprietary trading was not the culprit leading to the financial crisis,⁷⁶ and removing that activity from banking entities has not removed its influence on banks.⁷⁷ To the extent there are concerns that a bank will bail out a sponsored fund, there are more direct ways to address this possibility. For example, a simple ban on making customers whole (such as appears in some countries, like Japan) will be sufficient to bar banking entities from propping up the funds that they sponsor.

Conclusion

As I noted at the outset, the Volcker Rule addresses the wrong problem in the wrong way. There is certainly an argument for regulating risky trading activities. But the problems leading up to the financial crisis did not arise from short-term proprietary trading, and so – particularly in light of the Volcker Rule’s substantial costs – it is unclear why banning that activity from banking entities is necessary. Doing so inadvertently sweeps up a number of legitimate trading businesses and, as a result, potentially raises the cost of new capital.

The Volcker Rule should be replaced. In its place, there are other ways in which risk-taking can be regulated. A robust focus on risk-based capital requirements, designed to boost the amount of loss-absorbing common equity within a financial firm, may be the more appropriate tool. Imposing strict capital requirements on a banking entity’s trading book, without trying to parse the difference between proprietary trading and market-making, will more efficiently accomplish the same ends – namely, a reduction in risk taking – that the Volcker Rule originally set out to do.

⁷⁵ See BARR, JACKSON & TAHYAR, *supra* note 42, at 685-86.

⁷⁶ See *supra* notes 2-6 and accompanying text.

⁷⁷ See *supra* notes 42-56 and accompanying text.