

What Is the Likely Impact of the Volcker Rule on Markets, Businesses, Investors, and Job Creation?

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Abstract

The Volcker Rule prohibits banking entities from engaging in proprietary trading activities with the intention to curtail excessive risks for banking entities and to limit conflicts of interest. However, this section of the Dodd-Frank Act is based on a false premise because a high proportion of large individual trading losses have historically occurred at non-banks. These non-bank losses tend to be those most threatening to financial stability. The Volcker Rule may have the unintended consequence of shifting risk-taking to less-regulated parts of the financial system that are less resilient should losses arise.

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I. Introduction

In July 2010, the Dodd–Frank Wall Street Reform and Consumer Protection Act became law. Its stated purpose is to promote a well-functioning financial system. In this regard, an important section, referred to as the Volcker Rule, prohibits banking entities from engaging in proprietary trading activities and limits their ability to invest in, or have certain relationships, with hedge funds and private equity funds. Certain activities are exempted from these prohibitions subject to prudential backstop provisions. The rule’s purpose is to prohibit activities that could create excessive risks for banking entities and conflicts of interest.

* This paper is based on J. Barth’s testimony before the United State House of Representatives Committee on Financial Services on December 13, 2012.

II. Problems

A problem with the Volcker Rule is that it is based on an incorrect premise, will be extremely difficult to implement, and, worse, will produce harmful economic effects. To elaborate, there is no evidence to support the belief that proprietary trading was a cause of the recent or any other financial crisis. In fact, all the evidence points to the contrary. The most recent crisis was triggered by poor lending and underwriting practices in the real estate sector as well as excessive leverage by and insufficient liquidity at banking entities, not by proprietary trading by banks (see, e.g., Baily, Litan, and Johnson, 2008; Barth et al., 2009; Dugan, 2010; Levitin and Wachter, 2012; Nolle, 2011). Another problem is that the implementation of the Volcker Rule will require regulators to distinguish between prohibited proprietary trading and permissible activities such as market making, hedging, and underwriting on behalf of customers. Because these permissible activities sometimes appear similar to proprietary trading, it may be virtually impossible for regulators to draw a bright line between the prohibited and permissible activities that is not arbitrary (see, e.g., Walsh, 2011). Furthermore, a third problem arises to the extent that regulators err on the side of restricting beneficial trading activities, or that the regulation deters banks from engaging in some permissible activities, the result will be banks providing less liquidity in the market. This, in turn, will increase the bid-ask spread on securities: Issuers will pay higher interest rates in the primary market to raise capital, and investors will pay more to purchase securities and receive less when selling them in the secondary market. All these developments harm markets, businesses, investors, and job creation.

III. Possible Unintended Consequences

As banks are denied the opportunity to engage in profitable trading activities, moreover, they may be driven to engage in ever more risky activities in an attempt to provide investors with an acceptable return. The Volcker Rule may therefore lead to riskier, not less risky, banks. The rule may also place U.S. banks at a competitive disadvantage to banks in other countries. In addition, the rule—while attempting to limit risk-taking at banks—may shift this risk-taking to less-regulated parts of the financial system that are less resilient should losses arise.

To elaborate on this last point, it is instructive that the a report of the Financial Stability Oversight Council (2011) notes that even

before the rule has been imposed, “major banking entities have taken or announced steps to sell, spin off, or close down their standalone ‘bright line’ proprietary trading businesses.” What will happen to these proprietary trading businesses? They will be conducted at non-banks. This seems to be starting already. The media has reported on proprietary traders moving from banks to non-banks and to hedge funds in particular, with headlines such as “Banks move high risk traders ahead of U.S. rule” (Wilkes, 2012), “Billion-Dollar Traders Quit Wall Street for Hedge Funds” (Abramowicz, Harper, and Kishan, 2012), “Deutsche Bank Head Debt Trader Cornut Leaves for Hedge Fund” (Abramowicz, Harrington, and Harper, 2012), and “Traders flee big-bank regulations to start own hedge funds” (De Cambre, 2012).

If proprietary trading simply carries on at hedge funds and other non-banks, including non-financial firms, the question then becomes: Is the forced migration of proprietary trading from banks to non-banks more likely to increase or decrease financial stability? To address this issue, we recently conducted a preliminary examination of 22 years of very large individual trading losses (Barth and McCarthy, 2012). We found that these trading losses were in no way limited to banks or financial services firms. Rather, they occurred at a range of firms, including banks, investment banks, hedge funds, and manufacturing firms. Even a local government authority was involved. We also found that these individual losses at banks—while as large as or larger than losses at non-banks—were smaller by far as a share of equity capital. That is, the losses at banks were less threatening to solvency than the losses at non-banks.

IV. Trading Losses Less Severe at Banks

This raises the possibility that instead of increasing financial stability, the Volcker Rule may actually decrease financial stability by shifting risk-taking activities from banks, which by and large have been more successful at absorbing the trading losses identified, to non-banks, which have been much less successful at absorbing losses, judging by our examination of the past several decades. Since 1990, we identified at least 15 instances when individual traders lost at least \$1 billion (in 2011 dollars). These 15 trading losses totaled nearly \$60 billion and ranged from a low of \$1.1 billion on ill-fated foreign exchange derivatives at a Japanese Shell Oil subsidiary to a high of \$9 billion on credit default swaps at Morgan Stanley. News coverage of

trading losses tends to focus on their size; it is this information that we present in Table 1.¹

It should be noted that just four of the 15 firms were banks: Société Générale, JPMorgan Chase, Union Bank of Switzerland (UBS), and Deutsche Bank. The rest were non-banks. Two were

**Table 1: Magnitude of Trading Losses:
Absolute Losses 1990–2012**

Name of Company	Type of Company	Year of Loss	Size of Loss (2011 Dollars, Millions)	Share of Total
Morgan Stanley	Investment bank	2007	9,605	16%
Société Générale	Bank	2008	7,546	13%
JPMorgan Chase	Bank	2012	7,500	13%
Amaranth Advisors LLC	Hedge fund	2006	6,567	11%
Long Term Capital Management	Hedge fund	1998	5,828	10%
Sumitomo Corporation	Manufacturer/oil refiner	1996	3,544	6%
UBS	Bank	2011	2,300	4%
Aracruz Cellulose	Manufacturer/oil refiner	2008	2,224	4%
Orange County	Government	1994	2,127	4%
Kashima Oil	Manufacturer/oil refiner	1994	2,127	4%
Barings Bank	Investment bank	1995	2,028	3%
CITIC Pacific	Manufacturer/oil refiner	2008	1,983	3%
Metallgesellschaft	Manufacturer/oil refiner	1993	1,882	3%
Deutsche Bank	Bank	2008	1,879	3%
Showa Shell Sekiyu	Manufacturer/oil refiner	1993	1,520	3%
Total			58,661	

Sources: Press reports, company annual and quarterly reports.

¹ For instance, when Abodoli's trading losses were discovered, headlines included "UBS questioned €3.6 bn of trades by Kweku Adoboli weeks before his arrest" (Russell, 2012), "Kweku Adoboli: How Did He Lose UBS \$2 Billion?" (Worstell, 2011), and "UBS trader Adoboli held over \$2 bn loss" (Murphy et al., 2011). The headlines after JPMorgan Chase's losses included "JPMorgan's 'whale' loss swells to \$5.8 bn" (Braithwaite, 2012), "JPMorgan's London Whale Losses Could Hit \$9 Billion, Bank's Shares Slump" (Schaefer, 2012), and "JPMorgan Trading Loss May Reach \$9 Billion" (Silver-Greenberg and Craig, 2012).

investment banks (Morgan Stanley, which became a bank the year after the loss, and Barings Bank), two were hedge funds (Long Term Capital Management and Amaranth Advisors), and one was a local government (Orange County). Fully 6 of the 15 were manufacturing or petrochemical firms: Sumitomo Corporation (a Japanese diversified industrial conglomerate), Aracruz Cellulose (a Brazilian wood pulp processor), Kashima Oil (a Japanese oil refiner), CITIC Pacific (a Chinese diversified industrial conglomerate), Metallgesellschaft (a German manufacturer), and Showa Shell Sekiyu (a Japanese oil refining subsidiary of Shell).

It is perhaps surprising that almost half the losses by individual traders were not at financial services firms but at the types of institutions that typically are thought to use financial products not for speculation but for hedging purposes with very little risk. However, in both the number of trading losses and the size of these losses, non-financial firms loom large. In terms of total losses, 26 percent occurred at manufacturing or petrochemical firms or local governments, and 74 percent occurred at financial services firms. Of this 74 percent, 33 percent of losses occurred at banks, 21 percent at hedge funds, and 20 percent at investment banks. The losses of non-financial firms tended to be smaller in absolute terms than the losses of financial services firms. Yet, it is quite clear that the trading problem is not limited to Wall Street or the City of London; Main Street firms are at risk of trading losses as well.

While the magnitude of these losses is staggering, some perspective is appropriate. Trading losses that risk eroding a firm's capital in its entirety are more important—to the institution, to other market participants, and (in the case of banks) to the federal deposit insurance fund or to taxpayers—than bigger losses at larger and better-capitalized firms. Other things being equal, a better-capitalized institution can sustain bigger trading losses, so it is less likely to fail and impose costs on counterparties, taxpayers, and (in the case of systemically important institutions) the financial system in general and perhaps on the economy as a whole.

Table 2 presents the same 15 trading losses from a different perspective. In addition to the absolute magnitude of the losses, they are presented relative to the total assets, equity, and—for banks—tier one (core) capital the institutions had at the time the losses were recognized. Both equity and tier one capital are measures of a firm's ability to absorb losses without being pushed into insolvency, which

**Table 2: Magnitude of Trading Losses:
Relative Losses 1990–2012**

Name of Company	Size of Loss (2011 Dollars, Millions)	Loss as a Share of		
		Percent of Assets	Percent of Equity	Percent of Tier 1 Capital
Morgan Stanley	9,605	0.9%	28.8%	26.2%
Société Générale	7,546	0.4%	12.0%	15.4%
JPMorgan Chase	7,500	0.5%	6.1%	8.5%
Amaranth Advisors LLC	6,567	65.0%	260.0%	n/a
Long Term Capital Management	5,828	3.4%	93.6%	n/a
Sumitomo Corporation	3,544	5.2%	n/a	n/a
UBS	2,300	0.1%	3.8%	5.3%
Aracruz Cellulose	2,224	19.1%	52.0%	n/a
Orange County	2,127	7.3%	19.7%	n/a
Kashima Oil	2,127	n/a	n/a	n/a
Barings Bank	2,028	n/a	298.7%	n/a
CITIC Pacific	1,983	16.8%	36.9%	n/a
Metallgesellschaft	1,882	13.0%	n/a	n/a
Deutsche Bank	1,879	0.1%	4.0%	3.9%
Showa Shell Sekiyu	1,520	13.2%	66.2%	n/a

Sources: Press reports, company annual and quarterly reports.

occurs when the value of a firm's total assets is less than the value of its total liabilities. When a firm has a large equity cushion, other things being equal, it is more able to absorb trading losses. Tier one capital essentially consists of equity and retained earnings less certain types of intangible assets. Regulators in the United States and abroad set capital adequacy standards based on tier one capital and monitor the ratio of a bank's tier one capital to total assets. Seen through this lens, the losses at banks appear less worrisome than those at non-banks.

Three of the 12 firms for which we have information about their equity suffered individual trading losses of at least \$1 billion nearly equal to or greater than their equity cushions.² All three were non-banks (hedge funds Amaranth Advisors and LTCM and investment

² We have no data for net equity for Metallgesellschaft, Sumitomo, and Kashima Oil. However, the fact that none of them failed and none was bailed out suggests that their losses were less than their net equity.

bank Barings Bank), and all three either failed or were bailed out. LTCM was bailed out by a government-arranged consortium of its trading counterparties, whereas Amaranth Advisors arranged a transaction whereby JPMorgan Chase and hedge fund Citadel Investment Group took over its energy portfolio and then liquidated the rest of its holdings—a failure in form if not in name (Burton, 2006; Associated Press, 2006). Barings Bank—one of the UK's oldest financial institutions at the time—was allowed to fail by the Bank of England, and administrators were called in to dispose of its assets.

All of the remaining firms for which we have information about their equity suffered losses smaller than their equity cushions. Four of the nine had losses of 25 percent or more of equity, and two had losses between 10 percent and 25 percent of equity. All four institutions with losses of 25 percent or more of equity were non-banks: Showa Shell Sekiyu, Morgan Stanley, Aracruz Celulose, and CITIC Pacific. All survived, however, with the possible exception of Japanese oil refiner Showa Shell Sekiyu, although each was forced to seek additional funding from outside investors to rebuild its capital or to seek capital from its parent corporation (Morgan Stanley, 2008; Associated Press, 2008; Caminada and Price, 2009; Kwok, 2008).

Of the two institutions with losses between 10 percent and 25 percent—Orange County and Société Générale—one failed. Orange County suffered bankruptcy despite the fact that its counterparty in the ill-fated trades—Merrill Lynch—loaned Orange County \$2 billion of a \$2.5 billion credit line after the losses (Malkin, 1994). Société Générale was the only bank to suffer an individual trading loss of this magnitude relative to its capital, and it increased its capital by some 5.5 billion euros (more than \$8 billion) after the discovery of the losses by issuing additional rights to stockholders at a steep discount to the market price (Société Générale, 2008; Hume, 2008; Viscusi and Chassany, 2008).

The remaining three institutions—JPMorgan Chase, UBS, and Deutsche Bank—suffered losses of less than 10 percent of equity. JPMorgan Chase's losses, while vast, were not large enough relative to its equity cushion to present a solvency problem and did not compel the bank to raise additional capital. Thus, "the loss by [JPMorgan] affects its earnings, but does not present a solvency issue. [JPMorgan], like other large banks, has improved its capital, reserves, and liquidity since the financial crisis, and its levels are sufficient to absorb this loss" (Curry, 2012). Similarly, the huge losses at UBS were

substantially less than its equity capital and presented no solvency problem for the Swiss banking giant. Thus, although the Swiss Financial Market Supervisory Authority (in conjunction with the U.K.’s Financial Services Authority) initiated formal administrative enforcement proceedings against UBS in February, the focus was on “assess[ing] ... the adequacy of the controls that were in place to prevent and detect unauthorized trading,” and UBS has not been required to raise additional capital (FINMA, 2012). Deutsche Bank’s losses also presented no solvency problems and did not require it to raise additional capital. In addition, the “tier [one] capital ratio [to risk weighted total assets] of the bank has remained at over 10%” in 2008, according to its financial statements. As with UBS and JPMorgan Chase, the losses primarily presented an earnings problem for the bank, which lost 5.7 billion euros in 2008 before taxes (approximately \$8.4 billion) (Deutsche Bank, 2009).

Table 3 compares the relative magnitude of the individual trading losses identified at particular types of firms to the relative magnitude of losses in general for the period 1990–2012. It is no surprise that the banks’ losses, accounting for 0.2 percent of total assets and 5.3 percent of their equity, posed relatively little risk to solvency. Investment banks are considerably riskier, with losses equal to 0.9 percent of total assets and 34 percent of equity. This suggests that the leverage of the investment banks experiencing losses between 1990 and 2012 was considerably higher than that of the banks with losses over the same period.

**Table 3: Magnitude of Trading Losses:
Relative Losses 1990–2012**

Type of Company	Size of Loss (2011 Dollars, Millions)	Losses as a Share of		
		Share of Total Losses	Total Assets	Net Equity
Bank	19,225	33%	0.2%	6.5%
Hedge fund	12,395	21%	6.8%	141.6%
Investment bank	11,633	20%	0.9%	34.2%
Manufacturer/Oil refiner	13,281	23%	9.5%	47.9%
Government	2,127	4%	7.3%	19.7%
Total	58,661	100%	0.6%	14.2%

Sources: Press reports, company annual and quarterly reports.

It may surprise critics of the financial services industry that the next most risky firms in terms of solvency are manufacturing and petrochemical firms—firms that typically are end-users of derivatives and other financial products. However, this class of institutions experienced average losses of 9.5 percent of total assets and 47.9 percent of equity. Unlike investment banks that lost money, the issue is clearly not one of leverage, but of the size of the losses relative to both total assets and equity of the firms. Finally, the most risky are hedge funds, which experienced losses equal to 7 percent of total assets and 140 percent of equity. The issues would appear to be largely one of debt for LTCM, which was leveraged about 25 times, and one of the size of losses relative to total assets for Amaranth Advisors, which was leveraged just four times (Chincarini, 2007; Jorion, 2000).

Table 3 should give pause to those who believe the Volcker Rule will enhance our country's financial stability. Trading appears to be less risky when carried out at banks than at non-banks. The important point of this exercise, however, is that one should focus not on trading losses per se, but on potential trading losses relative to equity capital, which reflects a firm's ability to absorb losses. Excessively leveraged firms are clearly less able to absorb trading losses—or any losses, for that matter. Moreover, some large trading losses did occur during the financial crisis, but mortgages based on poor lending and underwriting quality were largely to blame rather than the trading itself. Furthermore, the most leveraged firms suffering these losses were in the greatest jeopardy of insolvency.

V. Conclusion

To conclude, the focus of regulation should therefore be on ensuring that banking entities have sufficient capital commensurate with their risk, not on separating some investment bank activities from commercial banking. Furthermore, proprietary trading per se was in no way the cause of the last financial crisis, nor was it the cause of any financial crisis in the United States or abroad of which we are aware. The more regulators prohibit or limit banking activities, the more they may create incentives for these activities to move to non-banking firms. In addition, such regulations may make banks less profitable and more willing to engage in other more risky activities. This may well have the effect of making banks less sound and decreasing overall financial stability.

Most importantly, we see very little, if any, upside to the Volcker Rule, but substantial costs to markets, businesses, and investors. That the rule is well-intentioned and banks may survive it is not the issue. The issue is whether the benefits exceed the costs. There is no evidence that this is the case, and our reading of the evidence is to the contrary. It is therefore difficult to justify such a major organizational change in banking.

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