FEDERAL RESERVE BANK OF BOSTON™

"Risk of Financial Runs – Implications for Financial Stability"

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I am grateful to the Levy Institute for the invitation to take part in a conference that focuses on such a vital goal – building a financial infrastructure that supports a more stable and equitable economy.

Before I begin, I want to take a moment to acknowledge that I join you from a community in Boston that on Monday endured a terrible and profoundly cruel tragedy, at the Marathon. My thoughts are with the many people who were wounded, with those – including Boston Fed staff – who were uninjured but at the scene, and most of all with the families and friends of those whose lives were lost.

So with heavy hearts we turn to the matter at hand, perhaps finding a small bit of encouragement in doing work that intends to make things better for all participants in our economy.

Today I would like to discuss the risk of financial runs – and the implications for the stability of the financial system, which underlies a well-functioning economy. Of course, I would like to note that the policy views I express today are my own, not necessarily those of my colleagues on the Board of Governors or the Federal Open Market Committee (the FOMC).

The financial crisis of 2008 and its aftermath have significantly increased the attention policymakers devote to financial stability issues. The Dodd-Frank Wall Street Reform and Consumer Protection Act (the Dodd-Frank Act) and a variety of new bank regulatory initiatives, including the Basel III capital accord, are intended to reduce the risk of similar problems in the future. For commercial banks, the policy changes stemming from the crisis have been increases in bank capital, stress tests to ensure capital is sufficient to weather serious problems, increased attention to liquidity, and new measures intended to improve the resolution of large systemically important commercial banks.

While these measures are clear steps toward improved financial stability, I believe the actions taken around other, less traditional financial institutions have not moved nearly as markedly or at the same pace as the corrective actions taken for commercial banks. This is despite the fact that less traditional financial institutions were at the epicenter of the crisis. My comments today will focus on one area that has received less attention in the United States than elsewhere – the need to ensure that large broker-dealers will not need to rely on a government safety net in the future.

The financial runs that beset highly leveraged institutions, structures, and products were significant and unfortunate features of the financial crisis. While deposit insurance reduces the risk that depositors will flee *en masse* from commercial banks, the financial crisis highlighted that other types of financial institutions and structures were also highly susceptible to runs. For example, money market mutual funds, which are not required to hold capital, experienced credit losses and significant investor flight (i.e., runs) during the crisis. Policymakers put in place temporary backstops – insurance funded by the U.S. Treasury and a liquidity facility facilitated by the Federal Reserve – to avoid further collateral damage. Since then, there has been much public discussion of regulatory actions that could significantly reduce the financial stability concerns around money market mutual funds – which are regulated by the SEC – but industry opposition has been vocal, and no significant actions have as yet been taken.[1] Former SEC Chair Schapiro was right to pursue money market fund reform, and now that her successor is confirmed I am hopeful that the SEC will revisit this issue.

Structured investment vehicles (SIVs), which financed long-term, risky financial assets with short-term commercial paper, also encountered trouble during the crisis. Investors who were concerned about the valuation of the SIVs' long-term assets "ran" from the short-term commercial paper the SIVs issued to finance their assets, causing many SIVs to fail or be wound down.

Additionally, broker-dealer firms – which were assumed by most observers to present less risk of a run because their borrowing is often fully collateralized – proved vulnerable and also played a prominent role during the crisis. However, widespread questions about the appropriate valuation of collateral during the crisis made it apparent that collateral in and of itself was not sufficient to avoid runs.

Brokers act as agents for others and are defined by the Securities and Exchange Act to include those that "engage in the business of effecting transactions in securities for the account of others."[2] Dealers are "engaged in the business of buying and selling securities for their own account." Both are regulated by the Securities and Exchange Commission (SEC) and are subject to a variety of regulations including net capital requirements, restrictions on the use of customer accounts, and various accounting and reporting requirements.

Broker-dealers are a critical component of our financial infrastructure. They act as "market-makers" in securities, ensuring that markets remain highly liquid and that financial transactions can be conducted efficiently and effectively. Still, notwithstanding their market making strengths and capabilities, these organizations were not immune from the widespread seizing up of markets – and indeed found themselves at the center of events in the financial crisis.

Two prominent broker dealers failed at critical junctures during the crisis. The first major broker-dealer failure involved Bear Stearns. Arguably the most disruptive failure was Lehman Brothers. Emergency loans were provided to Bear Stearns, and in the wake of its assisted merger a variety of emergency credit facilities to backstop the industry were set up. Additional actions were taken, to forestall more widespread runs after the failure of Lehman Brothers.

Despite the central role that broker-dealers played in exacerbating the crisis, too little has changed to avoid a repeat of the problem, I am sorry to say. In short, I firmly believe that a reexamination of the solvency risks of large broker-dealers is warranted.[3]

Hence, my remarks today will highlight the need for more regulatory focus on broker-dealers. I will begin by discussing the role of broker-dealers and their experience during the financial crisis. I would then like to detail some of the policy actions taken during the crisis – actions that backstopped broker-dealers and prevented further collateral damage. Then I will examine why being housed within a bank holding company should not obviate the need for the broker-dealer subsidiary to hold more capital. Then I will provide some concluding observations.

Broker-Dealers and the Financial Crisis

Some of the largest broker-dealers serve as a counterparty to the Federal Reserve when the Fed buys and sells securities – performs so-called "open market operations" – in the conduct of monetary policy. Traditionally, most of the Fed's open market operations involve the buying and selling of Treasury securities, so broker-dealers that are the largest players in this critical market play a significant role in maintaining liquidity and market functioning. Most of these firms are also very active in making markets in a variety of other financial instruments, and as such they help to facilitate well-functioning credit markets more generally.

Figure 1 describes 10 large broker-dealers in 2006, with the fourth column noting their crisis-era changes. Rather striking changes have occurred among the largest broker-dealers as a result of the financial crisis. Two of the largest became bank holding companies (Goldman Sachs and Morgan Stanley). Lehman Brothers and Bear Stearns – formerly ranking among the ten largest – both failed. Merrill Lynch, which fell just short of the top 10 in 2006, was acquired while it was experiencing financial difficulties. And one of the largest foreign broker-dealers in 2006 (UBS) needed to be supported by its home government. These outcomes occurred despite two substantial emergency lending programs that provided backstop support to the large broker-dealers during the crisis.

Dramatic changes in organization and ownership occurred among these critical entities. That, and the extent of their problems during the financial crisis, make it clear that they did not hold sufficient capital to weather the magnitude of problems they would face during the crisis.

Liquidity Facilities during the Crisis

In 2008, the Federal Reserve established the Primary Dealer Credit Facility (PDCF) to help stem the financial crisis by providing overnight loans to primary dealers. The assets that were put up as collateral for the loans were subject to significant "haircuts" – that is, the dealers could only borrow against a fraction of assessed market value – to protect the Fed and minimize the risk that could stem from a borrower's default. As with the Fed's so-called Discount Window lending to commercial banks, lending was at the Fed's primary credit rate and the dealer was fully responsible for the repayment of the loan, beyond the collateral pledged (in other words, the loans were made *with* recourse).

The program began in March 2008, in the wake of the Bear Stearns failure, and ended in February 2010.[4] The PDCF was, in effect, tantamount to the Fed providing a "Discount Window" type lending facility to primary dealers – in order to ensure adequate functioning in securities markets that are a key part of the tri-party repo market.[5] These markets are widely-used in short-term financing, and importantly are used by the central bank to conduct the trades in short-term government securities that allow it to maintain the federal funds rate at the level dictated by the FOMC. It is important to point out that when all was said and done, all the loans made through the Primary Dealer Credit Facility were paid off in full; and the sizable returns to the Fed generated by the program were remitted to the U.S. Treasury.

As Figure 2 highlights, primary dealers used the program extensively during the crisis. Lending peaked at $156 billion.[6] And, while foreign-owned primary dealers did participate in the program, it was much more extensively utilized by domestic primary dealers.

The Fed established a second emergency program, the Term Securities Lending Facility (TSLF), which allowed primary dealers to lend less-liquid securities to the Federal Reserve for one month, for a fee, in exchange for highly liquid Treasury securities. This program provided needed liquidity to the market at a time when trading in a wide variety of securities had become impaired. The TSLF was also announced in March 2008 and ended in February 2010. As with the PDCF, there were no losses on the program, and the revenue the Federal Reserve generated in operating the facility was returned to the Treasury.

Figure 2 also shows that the peak balance of the term securities lending program was $246 billion.[7] This program had roughly equal participation by domestic and foreign primary dealers.

Figure 3 shows the loans outstanding over time with the PDCF. The outstanding loans peaked in the fall of 2008 as primary dealers found it particularly difficult to fund their positions.

Figure 4 provides the outstanding securities lent through the TSLF. Again the peak occurs in the fall of 2008, when liquidity for securities trading became particularly problematic.

In sum, broker-dealers experienced dramatic difficulties during the 2008 crisis, and the Federal Reserve needed to temporarily backstop broker-dealers with substantial lending. Given that recent history, the assumption that collateralized lenders like broker-dealers are not susceptible to runs has been proven wrong.

At the same time, broker-dealer capital regulation by the SEC remains largely unchanged, despite the lessons of the financial crisis. Consequently, broker-dealers remain vulnerable to losing the confidence of funders and counterparties should the world economy again experience a significant financial crisis.

As I have mentioned in other speeches,[8] during stress periods, bank holding companies with a low concentration in broker-dealer activities had less stock price response to the stress periods than institutions with greater concentration in broker-dealer activities. We have also examined the data on credit default swap spreads – a market gauge of the cost to insure against a party's default – and the data show materially higher spreads during times of financial turmoil for major banks with higher concentrations of broker-dealer activity.

Moreover, the current broker-dealer situation vis-à-vis capital poses the potential for significant moral hazard. Were a crisis to once again cause serious problems in liquidity and in securities-market functioning, it is quite possible that programs such as the PDCF and TSLF would need to be considered again (notwithstanding likely public opposition to what could be perceived as "bailouts"). If broker-dealers assume that they will once again have access to such government support should markets be disrupted, they will have little incentive to take the steps necessary to shield themselves from financing problems during a crisis and thus minimize their need for a government backstop.

Broker-Dealers and Bank Holding Companies

One of the fallouts of the financial crisis is that many of the large broker-dealer operations are now part of bank holding company structures. Goldman Sachs and Morgan Stanley became bank holding companies during the crisis. Bear Stearns was acquired by J.P. Morgan Chase, and Merrill Lynch was acquired by Bank of America. While these large broker-dealer operations are in bank holding companies, there are significant regulatory requirements and restrictions that apply, including capital thresholds and limitations on transactions between the FDIC-insured depository subsidiaries and the affiliated broker-dealer subsidiaries. Despite these restrictions, however, broker-dealers can still pose a risk to the broader organization by leaning on the parent bank holding company for support and, accordingly, reducing the availability of funds at the parent company to support any FDIC-insured depositary.

Bank holding company capital requirements are applied to the consolidated holding company. Arguably, the appropriate level of consolidated capital should depend on the risks inherent in the holding company's liability structure, as well as in its assets. For example, to avoid solvency risk for a firm dependent on wholesale funding may require significantly more capital than a firm with all insured deposits, because of the possibility for runs and "fire sale" disposal of assets. Those bank holding companies that are primarily funded by insured deposits are unlikely (or less likely) to suffer a substantial run. However, a bank holding company may find that liabilities of the broker dealer may be more susceptible to runs. In addition, current regulations restrict bank subsidiaries from supporting non-depository subsidiaries with funds from the insured depository. This suggests to me that bank holding companies with large broker-dealer affiliates should hold more capital to reflect the reduced stability of their liabilities during times of stress.

Figure 5 shows the Tier 1 common equity capital ratio over time, and Figure 6 shows the leverage ratio over time. While bank holding companies with large broker-dealer operations generally have more Tier 1 common equity than bank holding companies with little or no broker-dealer activity, this result primarily reflects that broker-dealers hold securities, which have low risk-weights compared to loans. In contrast, bank holding companies with large broker-dealer operations tend to have much lower leverage ratios than bank holding companies with limited broker-dealer activity. However, given the very different risks of runs posed by broker-dealers and their less stable liability structure, an argument can be made for higher capital requirements for broker-dealers as well as organizations, such as bank holding companies, with significant broker-dealer operations.

Concluding Observations

In summary and conclusion, I would just reiterate that broker-dealers did not perform well during the financial crisis. Many of the largest broker-dealers failed or were converted to or subsumed into bank holding companies. Despite these structural changes, significant government intervention was required to maintain market functioning and liquidity, in markets key to the stability of the U.S. financial system and the economy that relies on it.

Unfortunately, despite this history of failure and substantial government support, little has changed in the solvency requirements of broker-dealers. The status quo represents an ongoing and significant financial stability risk. In my view, then, consideration should be given to whether broker-dealers should be required to hold significantly more capital than depository institutions, which have deposit insurance and pre-ordained access to the central bank's Discount Window.

Thank you.

[1] Recently the presidents of the 12 Federal Reserve Banks submitted a joint comment letter responding to the Financial Stability Oversight Council's proposal on money market mutual fund (MMF) reform, available at http://www.bostonfed.org/news/press/2013/pr021213-letter.pdf. "Money market mutual funds have no explicit capacity to absorb losses in the event of a decrease in the value of assets held within the fund's portfolio," said the Reserve Bank presidents in their joint letter. "This structure gives rise to a risk of destabilizing money market mutual fund runs by creating a first mover advantage."

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[2] The Securities Exchange Act of 1934 governs the way in which the nation's securities markets and its brokers and dealers operate. The Act generally defines a "broker" broadly as any person engaged in the business of effecting transactions in securities for the account of others. Unlike a broker, who acts as agent, a dealer acts as principal. The Act generally defines a "dealer" as any person engaged in the business of buying and selling securities for his own account, through a broker or otherwise. [Source: the SEC's guide to broker-dealer registration, http://www.sec.gov/divisions/marketreg/bdguide.htm#II]

[3] I would note that Federal Reserve Governor Daniel Tarullo and New York Fed President William Dudley have raised concerns about broker-dealers and wholesale funding markets. See http://www.federalreserve.gov/newsevents/speech/tarullo20121204a.htm and http://www.newyorkfed.org/newsevents/speeches/2013/dud130201.html. In the former Governor Tarullo discusses "three proposals currently being debated in policy circles: (1) breaking up large financial institutions by reinstating Glass-Seagull restrictions or by imposing other prohibitions on affiliations of commercial banks with certain business lines; (2) placing a cap on the non-deposit liabilities of financial institutions; and (3) requiring financial institutions above a specified size to hold minimum amounts of long-term debt available for conversion to equity to avoid or facilitate an orderly resolution of a troubled firm."

[4] The final auctions for the PDCF and TSLF were in May and July of 2009, respectively. My graphs end in May and Aug 2009, not Feb 2010, because while the program still existed in those latter months, there were no loans outstanding.

[5] My colleague William Dudley, president of the New York Fed, discussed access to the discount window in a speech entitled "Fixing Wholesale Funding to Build a More Stable Financial System," available at http://www.newyorkfed.org/newsevents/speeches/2013/dud130201.html. In it he said "The other path would be to expand the range of financial intermediation activity that is directly backstopped by the central bank's lender of last resort function. […] We have banking activity — maturity transformation — taking place today outside commercial banks. If we believe these activities provide essential credit intermediation services to the real economy that could not be easily replaced by other forms of intermediation, then the same logic that leads us to backstop commercial banking with a lender of last resort might lead us to backstop the banking activity taking place in the markets in a similar way. However, any expansion of access to a lender of last resort would require legislation and it would be essential to have the right quid pro quo—the commensurate expansion in the scope of prudential oversight. […] Extension of discount window-type access to a set of nonbank institutions would therefore have to go hand-in-hand with prudential regulation of these institutions. Many thorny issues would have to be resolved."

[6] Our PDCF peak ($156 billion) is calculated using daily data and differs from the peak that is calculated and often reported using weekly data ($146.6 billion). Similarly our TSLF data is weekly, as of Fridays, whereas it is often published as of Wednesdays.

[7] Figures for the Term Securities Lending Facility reflect expected maturities and may not reflect early returns of loans outstanding.

[8] See http://www.bostonfed.org/news/speeches/rosengren/2012/062912/index.htm, particularly the discussion of broker-dealer financing beginning on page 11, and especially Figure 11.