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Senior Supervisors Issues Report on Risk Lessons Learned From the Global Banking Crisis of 2008

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TO: RISK MANAGEMENT ADVISORY COMMITTEE No. 1-09
RISK MANAGEMENT COMMITTEE No. 13-09
SEC RULES MEMBERS No. 117-09
SMALL FUNDS MEMBERS No. 62-09
FIXED-INCOME ADVISORY COMMITTEE No. 24-09
MONEY MARKET FUNDS ADVISORY COMMITTEE No. 45-09
MUNICIPAL SECURITIES ADVISORY COMMITTEE No. 51-09 RE: SENIOR SUPERVISORS
ISSUES REPORT ON RISK LESSONS LEARNED FROM THE GLOBAL BANKING CRISIS OF 2008

On October 21st, the Senior Supervisors Group (SSG) [\[1\]](#) published a report, *Risk Management Lessons from the Global Banking Crisis of 2008*, that provides an in-depth review of the funding and liquidity issues – and the deficiencies in these areas – that were central to the recent global banking crisis. [\[2\]](#) The Report is the product of discussions with and self-assessments by senior managers at thirteen of the largest financial institutions regulated by the SSG [\[3\]](#) regarding the impact on the firms of the market stresses for an eighteen-month period from 2007-2009. According to the Report, particularly vulnerable during this period were those firms whose business models were highly dependent on uninterrupted access to secured funding markets. This is because lenders' willingness to finance less traditional, harder-to-price collateral diminished and secured lenders tightened their definition of acceptable collateral. Also, counterparties and creditors sought to lessen their exposure to firms perceived to be "weaker" by reducing the amount of credit provided, increasing haircuts on positions financed, and shortening the terms for which credit was extended. According to the Report, these trends posed particular difficulties for firms that, lacking adequate liquidity reserves or contingent sources of funding, relied heavily on short-term repurchase ("repo") funding collateralized by illiquid assets.

The Report discusses in detail the impact of these market stresses on a variety of market activities including, among others, triparty repo transactions; prime brokerage; securities lending transactions; and money market mutual fund (“MMMF”) transactions. The Report’s discussion of these and other significant issues is briefly summarized below. In addition to providing observations on these issues, the Report highlights a number of areas in which work needs to be done to better identify, monitor, and control risks.

TriParty Repo Transactions

According to the Report, the triparty repo market had grown to be an important source of funding for broker-dealers and other financial entities that did not have access to stable deposit pools or lower cost, unsecured lines of credit. The Report’s observations regarding triparty repo transactions, which it describes as “complex,” were as follows:

- Lenders were funding considerable amounts of harder to price collateral, much of it with extended tenors that they would not be able or willing to invest in directly. [\[4\]](#) Firms questioned whether lenders had set the correct investment parameters such as margins, concentration limits, limits on illiquid collateral, and limits on the overall size of the collateral pool, to prevent a borrower default and subsequent “fire sale” liquidation of the collateral from causing material harm to the lender. Firms also questioned whether some lenders had the operational ability to undertake liquidations.
- Several firms noted that many borrowers had relied too heavily on short-term triparty repo, particularly to fund longer term illiquid assets, without substitute sources of liquidity.
- Clearing banks for the U.S. triparty repo market are pursuing enhancements to their risk controls to prevent repo transactions from posing undue risks to firms and the financial markets. Firms suggested that this framework should address the concentration of securities, potential exposure to securities that are of lower credit quality or illiquid, and haircut policies. They also suggested that credit risk managers independent of the business area should monitor borrower creditworthiness and behavior, transaction and collateral trends, and the resulting credit exposures in relation to the capital of the clearing bank.

Deposit Trends

The Report observes that, during the crisis, vulnerable firms faced sustained outflows, particularly in commercial and wealth management deposits; while firms that were perceived to be strong gained new deposits. Also, uninsured deposits were moved to banks perceived to be more financially resilient. Banks that benefited from deposit inflows primarily placed funds at central banks, assuming that their sudden increases in deposits were transitory and, due to their apprehension about the creditworthiness of counterparties. As a result, they were reluctant to lend out their increased balances to firms with significant funding needs. Pricing and promotions – e.g., offering rates that were low relative to rates offered by peers – by market participants became a signal to the market that the firm was in distress. According to the Report, depositors “became aware

that some of the best rates offered during the eighteen-month crisis came from firms that soon went out of existence.” [\[5\]](#)

Interbank Deposits and Funding

Counterparty concerns led to the near-cessation of interbank funding and any available funding was increasingly concentrated in short-term tenors, specifically six months or less. According to the Report, during the turmoil that followed the Lehman Brothers bankruptcy, few firms were willing to increase their credit exposure to other market participants and most firms sought to conserve their liquidity and reduce exposures to institutions they perceived to be vulnerable. Managers at several firms were pleased that they had had the discipline to build term funding up to a year earlier, even though it had seemed they were paying an excessive rate for the funding at the time.

Prime Brokerage [\[6\]](#)

Firms underestimated the funding vulnerabilities created by prime brokerage and the asymmetrical unwinding of client positions was a material drain on liquidity during the crisis. While, before the crisis many broker-dealers considered the prime brokerage business to be either a source of liquidity or a liquidity-neutral business, during the crisis, prime brokers experienced an extraordinary outflow of funds, causing significant liquidity and operational stresses. Following the failure of Lehman Brothers International Europe, prime brokers received an enormous number of requests from hedge fund clients for the repayment of free cash balances and excess margin. This contributed to an asymmetrical unwinding of client positions, which proved to be challenging, particularly in light of the short selling bans that were imposed globally on financial stocks by regulators. According to the Report, “As one client’s short position was closed out, the other client’s long position had to be refinanced by the prime broker in a highly stressed market for secured funding transactions.”

Unwinding of Securities Lending Transactions

The Report notes that the severity of the risks associated with securities lending activities caught many market participants by surprise as many had considered securities lending to be low-risk and liquidity positive. This is because cash collateral was typically reinvested in short-term, highly liquid money market instruments that were typically over-collateralized. As a result, “some beneficial owners and firms managing reinvestment funds may have become complacent about the liquidity, credit, market, and operational risks inherent in securities lending and failed to anticipate the severity of the liquidity risks in a highly stressed market environment.” [\[7\]](#) The Report observes that:

- A number of U.S. cash collateral reinvestment funds experienced reduced liquidity and/or fair market value losses as the issuers of certain assets in which the funds had invested defaulted, as other assets experienced decreasing market values, and as the market for such assets froze up. Such reinvestment funds experienced additional

pressures as some borrowers redeemed cash collateral and some lenders curtailed lending or withdrew (or attempted to withdraw) cash collateral.

- While a number of the cash collateral reinvestment instruments may have been highly rated and liquid when acquired, as they became less highly rated and increasingly illiquid, collateral managers had to decide whether to sell the instruments in an illiquid market (if possible) and realize significant losses, or retain the instruments in hopes of riding out the crisis.
- Major credit disruptions triggered an unwinding of securities lending transactions. Securities lenders retreated across the major markets, reducing exposures by recalling securities on loan, severely curtailing new loans, and reducing the tenors of new transactions.
- The need to borrow securities also declined as hedge funds and other market participants moved to deleverage and preserve cash in the face of falling stock prices, regulatory bans on short selling, and rising redemptions of hedge fund shares.
- The liquidity stress from unwinding securities lending transactions was greatest in the United States due to the larger emphasis by U.S. firms on cash collateralized transactions. Also, those lending programs that were more focused on volume/securities finance lending were more stressed than those that focused on intrinsic value lending. [\[8\]](#) In Europe, the greater prevalence of noncash collateral facilitated a more rapid unwinding of loans due to the absence of cash reinvestment risks.

Money Market Mutual Funds

The Report notes that MMMFs “are one of the largest buyers of bank short-term liabilities and are a key provider of liquidity to global financial firms.” [\[9\]](#) During the crisis, MMMFs significantly reduced, or even halted, their purchases of commercial paper and other short-term investments as concerns about firms’ viability escalated. For banks with sponsored funds, the decline in value of the funds’ investments and the funds’ inability to liquidate certain investments prompted bank sponsors to provide support to stabilize net asset values and meet redemptions. According to the Report, “in the United States, SEC-registered nongovernment (including prime) funds targeted to institutional investors experienced a 30 percent decline in net assets over the four weeks ending October 8, 2008, as investors sought to move cash to government money funds.” [\[10\]](#) A number of the firms provided some form of support to their sponsored funds to prevent a possible “breaking of the buck” scenario. This support mainly took the form of asset purchases, capital support agreements, and direct investments in the funds. “A small number of firms have provided support in the multibillion dollar range to affiliated funds, but the majority of firms have provided more limited sums.” [\[11\]](#)

Risk Management Responses to the Market Stresses

The Report discusses the ways firms have sought to strengthen their structures and processes in order to better address liquidity issues. These include the following:

- Firms are taking steps to enhance liquidity reporting and other forms of

communication across the firms' business lines, as well as to senior management and boards of directors about liquidity.

- Some firms are looking to improve coordination between funding and unsecured funding desks to address the risks of losing secured funding and the need to replace the financing of assets with unsecured funding.
- Firms are increasing their spending on infrastructure, improving their data, and strengthening the quality and timeliness of their reporting to avoid risks resulting from: mismatches between instrument maturity and asset liquidity; collateral outflows resulting from rating changes and asset price movements; off-balance sheet funding vehicles; and certain non-contractual obligations (e.g., providing support to avoid a MMMF breaking the buck). Many firms reported a need to identify and prepare more effectively for noncontractual contingencies such as reputational contingencies.
- The most common stress tests firms are conducting have generally been those subjecting trading or credit accounts to extreme historic events. Firms are changing their stress testing models to move beyond tests involving deteriorating credit quality, rating downgrades, and/or historical scenarios to more hypothetical situations that are more systemic in nature and longer in duration. These situations include, for example, the loss of secured funding of certain asset classes, a collapse in foreign exchange swaps, counterparty failure, mutual fund redemptions, and the illiquidity of asset-backed commercial paper. While many firms noted significant efforts under way to develop more regular and robust stress tests, most have not yet developed such tests. Much of their progress to date appears to be short-term and tactical in response to increased interest by senior management or the board to conduct specific scenarios. As such, so far the progress has not been strategic and forward-looking.
- Firms have reported the need to analyze deposits more thoroughly to better understand which deposits are more likely to leave in time of crisis.
- The crisis emphasized the need to strengthen collateral management and securities financing practices given the degree to which counterparty acceptance of less liquid collateral types can decline and haircuts and other terms can tighten in times of stress.
- Firms are reporting more robust funds transfer pricing to take into account liquidity, including contingent liquidity, and/or better alignment of incentives in business lines with established risk appetite.
- With respect to securities lending, beneficial owners are tightening the reinvestment guidelines applied by their agents and are becoming more discriminating in their choice of counterparties. Also, firms are strengthening controls over commingled accounts and migrating clients from commingled to separate accounts. Firms are focusing more on improving their collateral, managing their cash collateral reinvestments, and strengthening liquidity in their reinvestment funds. Also, there has been a significant shift to intrinsic value lending by beneficial owners that may previously have taken a volume/securities finance approach.
- With respect to MMMFs, the Report notes that sponsored funds are revisiting the adequacy of their liquidity buffers to protect against extreme tail events, including incorporating into their contingency funding plans support for MMMFs. There is also a trend among MMMFs to improve their liquidity profiles. One large sponsor noted that while liquidity in its MMMFs tended to be approximately 10 percent of total net assets prior to the crisis, it was subsequently raised to 25-35 percent.
- Firms reported that "they grappled with increased expectations for boards of directors. Several firms acknowledged that the increased accountability and expectations of board members are inconsistent with the historical depth of their interaction with the firm." [\[12\]](#) Some firms admitted a disparity between the risks

that the firm took and those that the board perceived it to be taking. Many firms reported that they are revamping the way information is presented to their boards. According to the Report, “[s]upervisors believe that active board involvement in determining risk tolerance of the firm is critical to ensuring that discipline is sustained in the face of future market pressures for excessive risk taking.” [13]

- Firms largely acknowledged that current compensation practices, as well as those in place prior to the crisis, created strong incentives to maximize revenues rather than risk-, capital-, and liquidity adjusted returns. Also, most firms recognize that their past compensation practices were driven by the need to attract and retain staff and were often not integrated within the firms’ control environment. To address this, some firms are reviewing their compensation practices and attempting to better align compensation with risk appetites.
- Related to the issue of compensation practices, some firms found that performance evaluations lacked the input of control functions, a practice that the firms are now looking to change. Some are now directly involving the chief risk office in business-line compensation decisions at a number of firms.

The Report notes that an important question for firms and supervisors is the extent to which the changes being made in response to the crisis are formalized into policies and procedures and prove to be effective in the management and funding of liquidity issues over time.

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endnotes

[1] The SSG is comprised of seven supervisory agencies from five countries, including, the French Banking Commission, the German Federal Financial Supervisory Authority, the Swiss Federal Banking Commission, the U.K. Financial Services Authority, and, in the United States, the Office of the Comptroller of the Currency, the Securities and Exchange Commission, and the Federal Reserve.

[2] The Report is available at <http://www.sec.gov/news/press/2009/report102109.pdf>. This Report is a “companion and successor” to the SSG’s first report, Observations on Risk Management Practices during the Recent Market Turbulence, which was issued in March 2008 and is available at <http://www.sec.gov/news/press/2008/report030608.pdf>. The 2008 report was undertaken to evaluate the effectiveness of risk management practices during the 2007 market turmoil.

[3] The reference in this memo to “firms” is a reference to the group that interacted with the SSG.

[4] According to the Report’s discussion of triparty repo transactions, “Significantly, most money market mutual funds (which make up the bulk of lenders in this market) may not be permitted to invest directly in the securities that serve as collateral in their repo transactions, so that the investors might be required to dispose of such collateral as soon as possible upon default of the counterparty.” Report at p. 7.

[5] Report at pp. 8-9.

[6] The Report describes prime brokerage as “a service offered by securities firms to hedge funds and other professional investors, [which] may include centralized custody, the execution and clearance of transactions, margin financing, securities lending, and other administrative services such as reporting.” It notes that the “growth of the hedge fund sector over the last decade was supported by a concurrent growth in the prime brokerage business within the investment banks that serviced these funds.” Report at footnote 4.

[7] Report at p. 11.

[8] Footnote 8 of the Report discusses the differences between these two approaches to securities lending.

[9] Report at p. 12. The Report’s cite for this data is the ICI. See footnote 12.

[10] Report at p. 12.

[11] Report at p. 13.

[12] Report at p. 23.

[13] Report at p. 4.