MF Global Five Years On

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On October 31, 2011, the broker–dealer (B/D) and futures commission merchant (FCM) firms of MF Global Group (MFG, the group and all its parts) collapsed, causing significant financial distress to its customers, many of whom were small investors or hedgers such as farmers, ranchers or commodity merchants such as grain elevator operators. Approximately $1.6 billion of customers' funds were not immediately available for liquidation proceedings, and more significantly, due to apparent misallocation (i.e., not segregated between firm and customers' accounts) and use of the funds to fund proprietary trading, thereby resulting in encumbrance of such funds.

In the event, by late 2015 all customers were made whole by recovery and distribution actions of the respective bankruptcy trustees and administrators appointed to liquidate the firm, depending on the jurisdiction and particular MFG business entity. Other creditors such as vendors or suppliers of services to MFG received approximately 95% of the value of their claims. In the five years following its collapse this episode has been well documented by trustee/administrator reports, legal proceedings and journalists[1].

MFG's collapse was characterized by a run on its liabilities and a hasty sale of its assets at possibly concessionary prices (known as a fire sale). As MFG suffered a crisis of liquidity (the inability to fund its proprietary positions) customers did not exit the firm *en masse*, at least not initially.

The eventual exit[2] by customers amounted to US$1.1 billion and accelerated when MFG was in the throes of credit downgrades[3]. This US$1.1 billion reduction in MFG's customer funds represented a drain on MFG's liquidity certainly, but likely it was not of sufficient magnitude nor happened rapidly enough, to cause the firm to collapse at the start of MFG's liquidity crisis.

To put it simply, some actual or potential providers of liquidity to MFG, such as commercial banks, reduced their liquidity provision at the same time that counterparties demanded additional collateral from MFG by increasing their margin requirements. MFG used multiple sources of liquidity, and, in some cases, the liquidity providers and the demanders were the very same firms. Such arrangements are not unusual in broad-based client relationships between, say, banks and their commercial customers.

In this context MFG faced various entities (banks in particular) as their customer (i.e., the bank as MFG's agent) and/or their counterparty (i.e., the bank as the other side of a dealt position). MFG's other key counterparties were the various central counterparties (CCPs, i.e., clearinghouses) that required collateral and liquidity for positions held by MFG, with the opposite sides of the positions guaranteed by the CCPs.

The liquidity crisis was experienced with respect to MFG's proprietary trading of mainly European sovereign debt. The strategy was based on earning the yield to maturity of the securities, but the strategy had the risk of default by the issuers. As with most investment strategies the other risks included the market (price/yield) risks of changes in interest rates overall and/or changes in the credit rating attached to the securities.

MFG's liquidity risk was based on the need to fund its positions through the full maturity of the securities (most were one year or less), thereby vacating the opportunity to sell the securities before maturity, to take either a profit or loss. This "lock-in" aspect of MFG's strategy was exacerbated by use of repurchase agreements (the sale of securities with an agreement to repurchase them at a later, agreed, date) to effect the so-called repo to maturity (RTM) strategy. With an RTM, the maturity of repo funding exactly matches the maturity of the security being financed. MFG was motivated to use the RPM strategy for two important reasons. First, the firm could use the cash generated by the repo (minus the margin haircut, which is the amount held back from the repo to cover the risk of the deal) to fund further positions, thereby creating leverage.

Second, because the accounting rules characterized the securities in the repo positions as "sold" MFG realized profits on the RTM immediately. The other leg of the repo transaction (i.e., the repurchase from the RPM counterparty at the maturity of the repo) was characterized as a forward purchase agreement (a derivatives transaction) which was marked-to-market with variations recognized as current profit or loss. Regardless, the consequence was that MFG was committed to using its capital to fund the strategy for the full duration. In effect, this strategy was akin to a highly levered portfolio of zero-coupon securities held until maturity.

However, as with market and credit risks, liquidity risks might change over time. MFG faced possible downgrades in the credit ratings of the sovereign issuers (such as Italy and Ireland) and the securities being financed could be subject to margin calls for additional collateral. As happened, such downgrades did occur and required MFG to obtain additional funding and liquidity to meet the calls. Concomitantly, due to its re-leveraging of positions, MFG itself was put on alert/watch lists by regulators[4] and rating agencies, and its eventual downgrades caused additional margin calls, reflecting MFG's increased counterparty credit (and liquidity) risk.

Institutionally, MFG's back office systems were appropriate for FCM and B/D business, and were not well-suited to managing a book of leveraged proprietary positons. Further, its use of two settlement banks (JP Morgan Chase and Bank of New York Mellon) to settle its securities (fixed income) transactions, as well as for access to immediate liquidity versus pending settlements (so-called in-the-box securities) complicated its liquidity management. This resulted in cases where liquidity was available at one bank but needed at the other. Its settlement banks were also key liquidity providers/agents, and as noted generally above, demanders of liquidity as MFG's counterparties, among others. As the downgrades occurred, MFG's access to liquidity would have been stressed at only one bank, and the use of two banks increased its operational and coordination risks substantially.

The trustees and administrators note that MFG apparently used customer-segregated funds, held in respect of its FCM activities[5], to fund some of the margin calls. The exact extent of such use was in doubt due to the chaotic conditions at MFG during its last weeks, compounded by its inadequate management information and control systems. The consensus was that between US$1 billion and $1.6 billion was possibly used inappropriately. Regardless of that possible violation, any amount of customer funds that may have been used was beyond MFG's capital and balance-sheet ratios, thereby allowing the firm to fund risks that it should not have been capable of taking.

In seeking liquidity, MFG sought to sell assets as essentially a fire sale. Due to the haste of and administrative chaos surrounding such attempted sales, and failures by counterparties to consummate the deals and the claiming of proceeds by settlement agents for monies owed, MFG was left with securities, especially corporate bonds, which were not sold. The unsold securities required full funding thereby locking up potential liquidity. Given MFG's market standing at the time, potential buyers of any of MFG's assets were unwilling to accept the settlement risk attached to trades with MFG. Even for securities that MFG was able to repo, the counterparties increased their haircuts, closed out their reverse repos, that is, calling for their cash back by returning the securities (as might have been allowed in the terms of the repo) to MFG, or took both actions. In response, MFG attempted to extend its fire sale to securities it had lent out after paying back the collateral in cash to the borrower, a further drain on its liquidity. It continued attempts to sell, possibly by auction, whole portfolios of holdings and further attempted to unwind some of its RTM positions. This latter effort itself called for short-term liquidity, in that the return of the securities (to allow their sale) from its CCP counterparties would require MFG to return the cash provided from the original repo (net of the margin already paid). Further, it would require that MFG take a charge (not a cash transaction) for the profit already realized from the RTM.

In the end and in total, these efforts were not adequate to save the firm, nor, due to questions about the status of customer funds and the extremely short time available (a week from the downgrades), to allow for its sale to another firm. MFG in all its parts was liquidated, and as noted, customers were left with unhedged positions and/or their assets tied up in liquidation proceedings for an extended time, essentially four years.

Among the lessons that may have been learned is that the public face—the customer business of MFG, and the institutional face—the proprietary business of MFG, were very different. Customers were relying on the rigorous and consistent regulations that existed on their behalf, with little knowledge of the risks the firm was taking overall and possibly by use of their monies without their consent. The customers could exit, run, from the firm and they did so. But, many may have not had much choice due to the suddenness of MFG's demise. Some customers may have had a false sense of security based on their expectation, that, in the event of a default, they would be protected by regulatory safeguards (e.g., funds segregation). Such expectations were reasonable given the explicit segregation requirements (per footnote 5), but further, their reasonable expectation that MFG was well managed and in compliance with applicable laws, regulations and rules. Customers believed they were dealing with a reliable agent, and generally they did not have full knowledge of the "other" MFG, namely the proprietary trading activities of the firm. Customers' collective faith in the customer-facing business exposed the moral hazard implications of the protections.

These severe tests of customer protections raised new regulatory questions as to the adequacy of their scope and application. New, more specific, customer funds segregation structures were proposed and implemented. Among them are the legally separate operationally comingled (known as LSOC) accounts that, as the name implies, would provide more visibility to any one customer's funds versus the comingled account used for operational purposes such as clearing. Another innovation was individual segregated accounts so that funds would be totally segregated on behalf of the customer. On their own initiative many customers have withdrawn any excess margin that might have formerly been left at an FCM.

Another lesson from the MF Global collapse is to pay more attention to the full scope of an FCM's business activities. In comparison to customers of MFG who assumed they were dealing with an agent, MFG's counterparties had access to more instantaneous data as counterparties or agents. Both classes lacked a full picture of MFG's financial condition except for periodic corporate filings and disclosures.

Reacting to what information they had, the institutional counterparties had several remedies such as demanding more collateral to protect their interests, which they did. It was more difficult for customers (many were hedgers) to either extract their funds or re-establish their hedge positions in a timely manner. Consequently, they suffered real and opportunity costs from the lack of access to FCM services.

Other claimants, creditors of various classes, had little choice but to hope for sufficient recovery of assets to cover their claims against the estates of MFG. Some former employees of MFG sued to recover vacation, deferred compensation and bonus pay as unsecured general creditors and as administrative and priority claimants depending on the nature of their claims. There may remain civil and criminal judgments to be resolved.

Ultimately, MFG's counterparties of all kinds were satisfied in whole or in large part, but their collective trust in the regulation and management of financial intermediaries in general was tested. Key among the results of the demise of MFG are the provision of additional customer protections, and more rigorous investor due diligence in choosing agents and counterparties.

Endnotes

1 See, for example, trustee reports by Giddens, via the Commodity Futures Trading Commission web site, first report at: http://www.cftc.gov/idc/groups/public/@newsroom/documents/file/mfglobaliinvestreport060412.pdf;
plus other summaries in public media. See also, Heckinger, *Journal of Financial Market Infrastructures*, Volume 3, Number 2, December 2014, at:
http://www.risk.net/journal-of-financial-market-infrastructures/technical-paper/2385913/mf-global-a-case-study-of-liquidity-risks

2 To exit, a customer would need to either liquidate open positions and withdraw available cash and securities, or transfer the open positions with cash and securities to another FCM or B/D.

3 In particular, credit downgrades by Moody's Investors Service and Standard & Poor's during the period October 24–27, 2011, reduced MFG's rating to junk status.

4 Notably, by the US Financial Industry Regulatory Authority (FINRA), a supervisor of US B/Ds; and by the Financial Services Authority (FSA), a supervisor of UK financial intermediaries (now the Financial Conduct Authority.) Each questioned the adequacy of MFG's capital to support the RTM strategy, specifically imposing a default risk capital charge to cover the sovereign debt that was the collateral for the RTM.

5 The segregation of customer monies and positions is part of law in the United States (US Commodity Exchange Act, Section 4d), for example, and is available to customers of intermediaries in other jurisdictions. Such segregation is called for in the Principles for Financial Market Infrastructures, Principle 14, CPSS (now CPMI)—IOSCO, as published April 2012, at BIS: http://www.bis.org/cpmi/publ/d101a.pdf

Author Biography

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Richard Heckinger was formerly Vice President and Senior Policy Advisor, Financial Markets Group, at the Federal Reserve Bank of Chicago. He started his career in financial markets at the Chicago Board Options Exchange in 1973, and has held positions in trading, exchange operations, project management, clearing, risk management, product development and marketing. In the 1990s he was Chief Operating Officer of the Stock Exchange of Hong Kong, and subsequently Chief Executive of the Hong Kong Securities Clearing Corporation. Other positions include Director and Head of the Deutsche Böerse/Eurex US Representative Office located in Chicago and Managing Director for Global Link at State Street Corp in Boston.

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