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Enhancing financial stability: The case of financial market utilities

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The sweeping overhaul of the nation's financial regulatory system that was signed into law on July 21, 2010, will touch virtually every aspect of financial markets. This *Chicago Fed Letter* focuses on provisions in the Dodd–Frank Wall Street Reform and Consumer Protection Act that affect "financial market utilities," critical behind-the-scenes institutions and arrangements that ensure the smooth functioning of financial markets.

More information on the reform bill and a link to the entire text can be found on the legislative information website of the Library of Congress at http://thomas.loc.gov/.

Financial market utilities (FMUs) include the systems by which large value payments are made and systems by which securities and derivatives contracts are cleared and settled.[1] For example, one type of FMU, a central counter party (CCP), interposes itself between the buyer and seller of a financial contract and establishes risk management arrangements to ensure that contracts cleared through the CCP are paid in full, even if a member of the CCP defaults.[2] Because certain FMUs have the potential to pose systemic risks to the financial system, the Dodd–Frank act aims to reduce these risks through greater prudential regulation and supervision. The act also seeks to strengthen the money settlement mechanisms of FMUs by permitting FMUs that have been designated as systemically important to have accounts at regional Reserve Banks and obtain access to Federal Reserve payment and settlement services.[3] Finally, the act permits the Board of Governors of the Federal Reserve System (the Board) to authorize extensions of collateralized emergency credit to systemically important FMUs under certain limited circumstances and subject to terms and conditions established by the Board.

Systemic importance

The existence of a centralized utility, whether it is to provide a financial service or to deliver water to people's homes, necessarily concentrates risk because everything flows through a single system. A disruption at one point in the system, such as the failure of a large financial market player, could strain an FMU in a way that has the potential to spill over to other financial market players or to other markets more broadly. As more and more activity flows through the FMU "plumbing," the potential for disruption may increase. And in fact the volume of financial activity flowing through certain FMUs will increase because of provisions of the new law requiring many derivatives contracts that are currently cleared bilaterally to be cleared in an FMU.[4] This will make the stability of FMUs that settle and clear derivative contracts all the more critical.

A key component of the new legislation is the creation of a Financial Stability Oversight Council (the Council).[5] Among other important responsibilities, the Council will determine which FMUs are *systemically important*. FMUs are defined as systemically important if their failure or disruption "could create, or increase the risk of significant liquidity or credit problems spreading among financial institutions or markets and thereby threaten the stability of the financial system of the United States."[6] If an FMU is designated as systemically

important, it will be subject to enhanced prudential regulation and supervision.

Enhanced regulation and supervision

If the Council designates an FMU as systemically important, it will have enhanced regulation and supervision by its primary regulator. For FMUs that are registered derivatives clearing organizations or clearing agencies, the primary regulator is the Commodities Futures Trading Commission (CFTC) or the Securities and Exchange Commission (SEC), respectively.[7] For all other systemically important FMUs, the Board is the primary regulator. The law requires extensive and ongoing consultation between the Board, the CFTC, and the SEC in setting and enforcing risk management standards and conducting supervisory examinations. The primary regulator for a particular FMU will play the lead role in setting and enforcing regulatory standards and the Board will play a back-up role.

The Board may prescribe risk management standards governing the payment, clearing, and settlement activities of systemically important FMUs that it regulates. Further, if the Board determines that the risk management standards imposed by the CFTC or SEC on the FMUs for which they act as primary regulator are not strong enough to prevent significant risks to financial markets, the Board can recommend to the Council that stronger standards be imposed. If two-thirds of the members of the Council agree, the Council can require the CFTC or the SEC to impose new standards.

The CFTC and the SEC will examine and enforce risk management standards for the designated systemically important FMUs that they regulate and the Board may participate in those agencies' supervisory exams. In addition, the law requires the CFTC, the SEC, and the Board to jointly develop risk management supervision programs for designated systemically important FMUs that are supervised by the CFTC and the SEC. The Board can also recommend that the CFTC or the SEC take enforcement actions against systemically important FMUs. If there is a disagreement about whether an enforcement action is appropriate, the Council can direct the SEC or the CFTC to take action by a majority vote.

The Council or the Board may also require systemically important FMUs, regardless of their primary regulator, to provide reports or data to allow for an assessment of the safety and soundness of the FMU, the risk that it poses to the financial system, whether standards are being adhered to, and more broadly, whether the risk management standards appropriately address risks to the financial system.

> The regulatory reform law calls for enhanced prudential regulation and supervision of designated systemically important FMUs.

Federal Reserve Bank accounts

The regulatory reform law allows the Board to authorize a Reserve Bank to provide deposit and payment services to a designated systemically important FMU. This is a substantial change from current law, which restricts the use of Reserve Bank accounts and payment services to depository institutions (e.g., banks, thrifts, and credit unions) and certain other institutions.[8]

Today, the Reserve Banks provide account and payment services to a small number of FMUs that are state-chartered, limited-purpose trust companies and members of the Federal Reserve System. Due to the specialized nature of their business, these FMUs generally use only a limited range of Reserve Bank payment services, such as the Fedwire funds transfer and securities transfer services and the National Settlement Service.[9] Access to Reserve Bank payment and settlement services would allow FMUs that are designated as systemically important under the new law to control the processing of time-critical large dollar payments directly rather than using commercial banks, commonly called "settlement banks," to intermediate the funds transfers associated with FMU settlement operations.

To illustrate the importance of time-critical payments and how the failure to make them could spread financial stress, consider a particular type of FMU, a derivatives CCP. Derivatives contracts are negotiated bilaterally either on an exchange or over-the-counter (OTC). The vast majority of exchange-traded derivatives and a substantial and growing portion of OTC contracts are sent post-trade to a CCP for clearing. The primary risk with a derivatives contract is that one party to the contract will fail to perform on the terms of the contract when payment is due. This risk exists for the life of the contract, which may be many months or sometimes several years. A key aspect of a CCP is that it becomes the legal counterparty to each contract. Simply put, the CCP becomes the buyer to each seller and the seller to each buyer in a trade and, thereby, bears the risks that the original buyers and sellers would have borne with each other.

A CCP typically has several layers of risk management. First, CCP members must pass rigid membership standards and post performance bond collateral that is held by the CCP. Second, each day open contracts are re-valued based on price changes in the derivatives contracts (called mark-to-market). For example, if the price change is favorable to the buyer, the CCP requires the seller to pay cash to the CCP, which then distributes the cash back to the buyer. The opposite is true in the case where the daily price change is favorable to the seller. These payments (variation margin) are made at least once during the day on a strict schedule. Third, the CCP has additional financial resources in the form of a guarantee fund comprising member contributions and external same-day liquidity facilities provided by a consortium of banks.

In the event that a member of a CCP fails to perform on its obligations to the CCP, the CCP is nonetheless obligated to perform on its positions with other members. This creates a need for liquidity to enable the CCP to pay non-defaulting members what they are owed. The risk management controls of the CCP described

above are designed to ensure that it has adequate liquidity in case of a member default. The CCP needs *timely* liquidity because payments to members in credit positions are due at specific times during the day. Therein lies the potential for systemic risk—if the CCP does not make payments to members in credit positions, those members may be unable to make subsequent payments to other parties, which may trigger further defaults or liquidity shortages in other financial markets.

Today, CCPs rely on settlement banks to provide timely payments owed to members. In a period of financial stress, settlement banks may not have access to sufficient liquidity to execute payments in a timely fashion. If market participants learn of delayed settlement bank payments, this situation could lead to market uncertainty, thereby exacerbating financial stress. In contrast, if the CCP settles through an account at a Reserve Bank using Federal Reserve payment and settlement services, it can better control the timing of critical payments; this will eliminate the potential for settlement disruptions arising from the unavailability or insolvency of the settlement bank. A system of settlement through central bank accounts to eliminate credit or liquidity risk is in line with international standards set by the Bank for International Settlements and the International Organization of Securities Commissions and recent recommendations from the International Monetary Fund.

Emergency access to discount window credit

In addition to the provisions for enhanced supervision and account services, the financial reform act gives the Board authority to permit a Reserve Bank to provide borrowing privileges to a designated systemically important FMU in certain limited circumstances in order to mitigate systemic risk. As critical connection points in the financial system, systemically important FMUs need to be able to settle on time over a wide range of circumstances so as not to propagate systemic risk. This is why it is essential that FMUs have robust risk management regimes and why they are subject to further enhanced supervisory and risk management standards under the reform legislation.

However, despite robust risk management and rigorous supervision, FMUs cannot ensure settlement under all circumstances. In certain extreme situations, when even the most robust risk controls may be insufficient, access to the central bank's lender-of-last-resort facility can help contain potential systemic liquidity disruptions that could result from an FMU settlement problem. It is important to note that FMU settlement problems typically stem from a liquidity shortfall related to late settlement payments and not from an FMU solvency problem.

FMUs are expected to have robust private sources of liquidity even in times of market stress.

While Congress recognized the need for systemically important FMUs to obtain access to central bank credit in certain extreme circumstances, it also recognized that routine access to such credit would not be in the public interest. The reform legislation, therefore, put certain limitations on FMU access to Federal Reserve credit. Specifically, a designated systemically important FMU will only be able to access Federal Reserve credit in unusual and exigent circumstances, after Board consultation with the Secretary of the Treasury and an affirmative vote of a majority of the Board, and after the FMU has shown that it is unable to secure adequate credit accommodations from other banking institutions. Furthermore, any emergency loans to an FMU would be backed by collateral provided by the FMU that is deemed acceptable by the Federal Reserve. Finally, borrowing privileges are subject to such other limitations, restrictions, and regulations as the Board may prescribe.

In addition, the language of the new law clearly indicates that FMUs are expected to have robust private sources of liquidity even in times of market stress. Borrowing from a Reserve Bank is intended to be a last resort to meet a short-term liquidity need and functions as a backstop to private market sources of liquidity. These legislative provisions reinforce long-standing regulatory and supervisory policies and international standards that FMUs must have adequate private sources of liquidity to complete settlement and that they are expected to complete daily settlement in a timely manner under a range of conditions. In providing for and clarifying the terms of access to central bank credit, the legislation also establishes a basis for the Board and the Reserve Banks to be operationally prepared to extend emergency credit should the need arise.

Conclusion

The overhaul of our nation's financial regulatory system is designed to reduce systemic risk and to increase financial market stability. For systemically important FMUs, these statutory objectives are promoted by subjecting them to greater prudential regulation and supervision and allowing them to access Reserve Bank settlement services and, in extreme circumstances, Federal Reserve credit.

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The goal of these legislative provisions is to make sure that the FMU "plumbing" continues to function as designed, even in extreme circumstances, and that FMUs do not become the source or transmitters of systemic risk in a future financial crisis.

[1] For a discussion of FMUs, see R. Heckinger, D. Marshall, and R. Steigerwald, 2009, "Financial market utilities and the challenge of just-in-time liquidity," *Chicago Fed Letter*, Federal Reserve Bank of Chicago, No. 268a, November.

[2] For a discussion of the structure of CCPs, see J. McPartland, 2009, "Clearing and settlement of exchange traded derivatives," *Chicago Fed Letter*, Federal Reserve Bank of Chicago, No. 267, October.

[3] The Federal Reserve System comprises 12 Reserve Banks serving regional districts of the United States and the Board of Governors of the Federal Reserve located in Washington, DC.

[4] Dodd–Frank Act, Title VII.

[5] The Financial Stability Oversight Council has ten voting members: the Treasury Secretary (Chairperson of the Council); the Chairman of the Federal Reserve Board; the heads of the Consumer Financial Protection Bureau, Office of the Comptroller of the Currency, SEC, Federal Deposit Insurance Corporation, CFTC, FHFA, and NCUA; and an independent member with insurance expertise appointed by the President and confirmed by the Senate. The Council also includes five non-voting members: the heads of the newly established Office of Financial Research and the Federal Insurance Office; and a state insurance commissioner, banking supervisor, and securities commissioner.

[6] Dodd–Frank Act, §803(9).

[7] The CFTC is the primary regulator for most futures and options on futures transactions and oversees derivatives involving commodities like soybeans, oil, or metals, as well as derivatives on interest rates and currencies. The SEC is the primary regulator for securities and derivatives that are security-based.

[8] Today, depository institutions may open a "master" account with the Federal Reserve Bank in whose district they are located. Funds maintained in the master account include balances held to cover required reserves, any excess reserves, and balances used to cover the debits and credits that arise from the use of payment services.

[9] Fedwire funds transfer is a real-time gross settlement (RTGS) system that banks use to send time-critical large dollar payments. Fedwire securities transfer allows banks to hold, maintain, and transfer U.S. Treasury and certain other securities. Fedwire payments are processed individually and settled in real time and are final and irrevocable upon settlement. The National Settlement Service allows participants in private sector clearing arrangements to exchange and settle transactions on a multilateral basis through designated master accounts held at the Federal Reserve Banks.