WINTER 2009 | 2010
Volume 1 Number 1

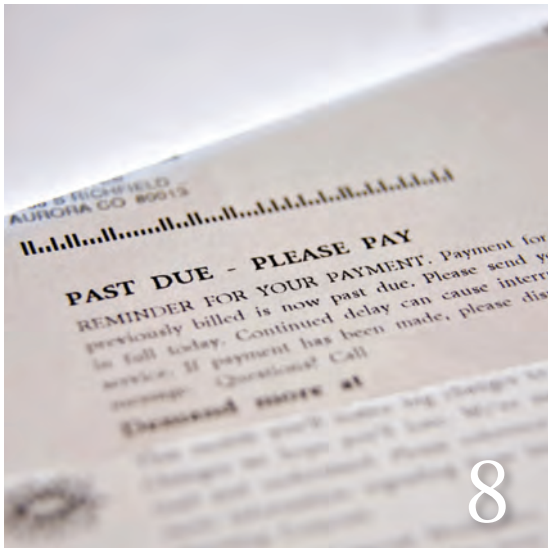
Forefront

New Ideas on Economic Policy from the FEDERAL RESERVE BANK *of* CLEVELAND

Making Financial Markets Safer for Consumers

INSIDE:

Forefront
New Ideas on Economic Policy from the FEDERAL RESERVE BANK *of* CLEVELAND



Forefront
Federal Reserve Bank of Cleveland
PO Box 6387
Cleveland, OH 44101-1387

forefront@clev.frb.org
clevelandfed.org/forefront

WINTER 2009|2010 Volume 1 Number 1

CONTENTS

A Framework for Systemically Important Institutions

Too big to fail or not too big to fail—that, it turns out, is *not* the question.

CORBIS

Jean Burson,
Policy Advisor

***This article is based on James Thomson's "On Systemically Important Financial Institutions and Progressive Systemic Mitigation," Federal Reserve Bank of Cleveland* Policy Discussion Paper, *August 2009*.**

The too big to fail problem is not an either–or proposition. Sometimes a firm is systemically important—with the potential to endanger the broader financial system if it fails. Other times, the same or a similar firm may not be systemically important. And while size can sometimes be the essential criterion for determining whether a firm is systemically important, the definition also depends on the circumstances and characteristics of a particular institution.

Was Bear Stearns too big to fail? In the spring of 2008, federal regulators thought so. They quickly moved to provide financial backing for a sale. But confusion lingered among market watchers over what precisely made Bear Stearns important on a systemic scale. Was Lehman Brothers too big to fail? In the fall of 2008, federal regulators didn't think so. But the rapid deterioration of the financial markets following the bankruptcy of Lehman Brothers has led some to conclude that in hindsight, it was systemically important in the context of the fragile market conditions at the time of its collapse.

These twin cases underline the need for a framework to classify systemically important institutions. By framework, we mean a comprehensive method for determining—on a case-by-case, moment-by-moment basis—just which firms are too big to fail. From there, it is much easier for policymakers to craft a response.

A first step is to recognize that two institutions might be considered systemically important for unrelated reasons. For example, a firm might be systemically important simply because of its size—in terms of revenue, employees, or assets. In this category, we almost certainly can include top financial institutions such as CitiGroup and Bank of America.

Another firm might be considered systemically important because it is a major player—or the only player—in an important financial market. The insurance giant AIG Corp., for example, was by far the leading seller of credit default swaps (CDS). When AIG couldn't live up to its promises to pay off buyers of CDS instruments, its imminent failure would have likewise toppled scores of counterparties.

Still another institution might not be systemically important in its own right, but when considered as part of a group of institutions engaged in similar activities or exposed to common risks, the collective activities of that group create the potential for systemic risk. The recent meltdown in the subprime mortgage market is just such a case—since "everybody" was doing it, the risk increased far beyond what it would have been had only a few firms engaged in this type of lending. A number of factors and permutations of factors can present systemic risk, creating a formidable challenge for any regulator or policymaker.

It would be a mistake to go into regulatory overdrive and impose new requirements on all financial institutions in the wake of the 2008–09 financial crisis. When the pendulum swings toward an overly restrictive regulatory environment, innovation is stifled and the economy's long-term growth potential suffers. A more effective framework is consistent with longer-term regulatory goals, allows the sources of systemic risk to be managed without unduly increasing regulatory burden, and creates disincentives for firms to become systemically important in the first place.

The Four C's

The framework begins with the four C's of systemic importance: contagion, correlation, concentration, and context.

Contagion occurs when one firm's insolvency affects other firms connected to it. These connections might result from intertwined loans, deposits, or other types of financial relationships. Eventually, a chain reaction can begin that could threaten the entire financial system.

This domino effect of contagion can be thought of as the *too connected to fail* problem. It was contagion that prompted the Federal Reserve Bank of New York to arrange the acquisition of Bear Stearns by JP Morgan Chase based on the very real potential for spiraling losses among players in the mostly unregulated credit default swaps market. Because contracts were not traded through a centralized exchange, the total exposure of all counterparties was not known. Regulators were concerned that sellers might not have been able to meet their net obligations on contracts related to such a large and presumably solvent institution. Companies holding positions on Bear Stearns might have been perceived as risky, potentially resulting in runs on those institutions even if they were fully capable of meeting those obligations.

Correlation as a source of systemic importance can be thought of as the *too many to fail* problem. Two aspects of correlation risk are important for policymakers to consider. First, institutions have clear incentives to take on risks that affect other institutions, recognizing that regulators will be unlikely to allow any one of these institutions to fail. For example, financial institutions were willing to assume widespread exposure to subprime mortgages, mortgage-backed securities, and products related to mortgage-backed securities over the past decade. At some level, it was understood that regulators would be likely to bail out troubled firms rather than allowing all of them to fail.

When the pendulum swings toward an overly restrictive regulatory environment, innovation is stifled and the economy's long-term growth potential suffers.

A second source of correlation risk occurs when activities that appear to be unrelated during normal times become highly correlated during periods of financial stress. This behavior occurs when many institutions take similar actions in response to a development in the economy. Consider the fallout, for example, if a large group of hedge funds took similar positions on oil prices; a price shock would lead the hedge funds to reverse their positions all at the same time. Those synchronized activities can suddenly present systemic risk.

Correlation presents a particularly significant challenge for policymakers because it can be difficult to classify a group of institutions as presenting systemic risk before the trouble starts. An important first step in defining appropriate regulatory treatments is to determine what

What Is a Stress Test?

A stress test tries to determine whether a financial institution could survive under some very bad economic conditions. For instance, the stress test used earlier this year for the nation's leading financial institutions challenged whether a bank's balance sheet could hold up in the face of 11 percent unemployment, or if home prices crashed by 25 percent. How many loans would default under such a scenario, and what would happen to a bank's capital base as a result?

Depending on the results, regulators might require institutions to raise more capital to ensure that they could endure a lengthy slump. Last spring, stress tests of the nation's 19 largest banks showed 10 of them needed a larger capital buffer. Those 10 quickly responded with plans to sell more stock or raise capital in other ways.

Not Too Big to Fail After All

GETTY IMAGES

The story of how Drexel Burnham Lambert was forced into bankruptcy is a painfully familiar one. For most of the 1980s, the firm made its living in relatively low-rated "junk" bonds—debt of other companies whose ability to repay was judged as fair at best. One day in early 1990, one of Drexel's creditors declined to renew a $30 million credit line. Given that Drexel's bond portfolio was mostly illiquid, Drexel was suddenly in the position of not being able to meet its ongoing debt obligations. The firm tried to persuade both private banks and the Federal Reserve to provide a lifeline, arguing that its collapse would have serious ripple effects. But regulators determined that the securities markets would be able to endure in the face of a Drexel meltdown—and they did. Although the losses were large, most creditors turned out to have sufficient cash reserves to weather the fallout.

level of correlation across portfolios poses a systemic threat through the development of stress testing, scenario analysis, and comprehensive risk management tools. In fact, the type of risk modeling and scenario analysis required is already taking place in many large financial institutions.

Concentration as a source of systemic importance can be thought of in the classic sense of the definition of *too big to fail*: An institution has a highly concentrated market share of assets, loans, and deposits. However, even a firm that might not be considered too big to fail based on size can present systemic risk due to a concentration of activities. Firms that dominate key financial markets or payments systems therefore require careful monitoring. The previously mentioned dominance of AIG in the credit default swaps market is an example of how concentration can elevate a large, complex institution to a systemically important one.

Context becomes a source of systemic importance when regulators are reluctant to recognize the failure of a distressed financial institution under fragile economic or financial market conditions. This same firm would be allowed to fail under more normal conditions. Firms that might be systemically important based on context are often the most difficult to identify before conditions deteriorate, but stress testing and scenario analysis can help spot potential candidates and the likelihood and impact of triggering events. When anticipating these types of events, regulators need to consider that during periods of financial market distress, risk exposures can become highly correlated, and the number of systemically important institutions can quickly escalate.

A recent example of context as a source of systemic risk is the government's response to the failure of Bear Stearns. In 1990, Drexel Burnham Lambert became insolvent due to activities in the junk bond market. Even though it was the fifth-largest U.S. investment bank at the time, its bankruptcy had no adverse impact on the economy. But consider what happened in March 2008, when the subprime mortgage crisis claimed its first victim in Bear Stearns. Facing severe financial instability as a result of frozen credit markets, regulators brokered a deal with JPMorgan Chase to acquire the firm rather than allowing it to fail. Had this failure not taken place in the context of financial fragility and fear, regulators would have likely allowed the firm to face the consequences of its actions through a traditional bankruptcy process.

Bird's-Eye View

Once the sources of systemic importance are identified, regulators will be better able to understand how much potential systemic risk a firm presents to the entire financial system. Adopting this bird's-eye view offers real benefits. To complement a microprudential supervisory approach, where regulators monitor the safety and soundness of individual institutions, a single macroprudential supervisor focuses on aggregate systemic risk for the entire financial system, helping to put the financial industry on far more stable footing.

A "tiered parity" approach to macroprudential supervision places firms within one of three tiers—highly complex, moderately complex, and noncomplex—based on the four C's of contagion, correlation, concentration, and context. Only two of the three tiers would include firms considered to be systemically or potentially systemically important. This approach would allow regulators to focus on firms of relative systemic importance and to ensure a consistent application of regulatory taxes and supervisory oversight across each tier.

Tier 1—Highly complex financial institutions considered to be systemically important due to size or concentration and the potential risk of contagion. This tier would include both banks and nonbanks whose sheer size or concentration presents a material risk to the financial system and increases the risk of contagion. Regulators would reserve the most stringent requirements for these firms, including the highest levels of supervisory oversight and reporting requirements, regular stress tests, and mandatory requirements that encourage the markets to discipline these firms. For example, these firms might be required to issue subordinated debt, which automatically converts to common equity if capital ratios fall below a predetermined level. Tier 1 firms might also be required to participate in simulations conducted by the financial stability regulator and to ensure that executive compensation is appropriately aligned with the long-term viability of the firm and the safety and soundness of the financial system.

Tier 2—Moderately complex financial institutions considered to be systemically important due to interconnectedness, as a result of correlated risk exposures (either systemically or as part of a group) or as a result of the context presented by the economic or financial market environment. This tier would also include large financial institutions whose failure could significantly affect regional economies. Large regional banks and large insurance companies would be examples of firms included in this tier, although smaller companies might be included based on context or correlation.

Periodic stress tests, conducted to predict the response of the financial system to correlated risk or certain economic or financial market conditions, would provide regulators with guidance on how to manage the risk these firms present. Tier 2 firms would likely be subject to additional reporting requirements and more rigorous and frequent supervision than their less complex Tier 3 counterparts. Depending on the sources of potential systemic risk, they might be required to develop contingency plans to address insolvency. Other regulatory options might include portfolio limits and additional requirements for capital or loss reserves, as well as limits on exposures to counterparties, as ways to limit the potential for contagion.

Tier 3—Noncomplex financial institutions not included in the other tiers, largely consisting of community financial institutions. These firms fall outside the purview of the macroprudential supervisor due to the low probability of the threat of systemic risk. Tier 3 firms would be subject to a basic level of safety and soundness regulation and supervisory oversight. No special reporting requirements or regulatory treatments would be required.

Some details about these tiers remain to be determined:

- Will regulators identify firms as "too big to fail" (and will market watchers be able to figure out the identity of these firms on their own)?
- How much will market discipline figure into the new regulatory regime?
- Will systemically important firms increase the likelihood of moral hazard and alter the market's perceptions about whether the government will allow those firms to fail?
- Will the market be able to identify these firms regardless of disclosure based on regulatory requirements such as debt structure, frequency of supervision, and reporting requirements?

The tiered parity approach builds on the lessons learned from the current crisis—the risk presented by systemically important institutions—and lays a foundation of macroprudential oversight that will help regulators understand and manage emerging systemic risks. In addition, it provides a balanced approach to regulatory taxes that does not unduly punish firms that are unlikely to contribute to the next crisis. ■

President's Speech

Cleveland Fed President Sandra Pianalto introduces the concept of tiered parity in "Steps Toward a New Financial Regulatory Architecture" in an April 1, 2009, speech.
www.clevelandfed.org/For_the_Public/News_and_Media/Speeches/2009/Pianalto_20090401.cfm

Policy Discussion Paper

Read "On Systemically Important Financial Institutions and Progressive Systemic Mitigation," Cleveland Fed Vice President James Thomson's proposal on tiered parity.
www.clevelandfed.org/research/policydis/pdp27.cfm

Three-Tiered Proposal on the Drawing Board

To help explain the proposal to people who aren't policy wonks.
www.clevelandfed.org/research/topics/finstability/three_tier_risk/