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Regulating Systemic Risk

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- The financial crisis of 2008 is a clear example of systemic risk becoming real and affecting financial markets.
- Differences in the regulatory environment from country to country appear to explain some but not all of the differences in how the crisis affected different countries.
- Financial regulation that considers the international dimensions of financial markets and institutions is both desirable and feasible.
- Two specific regulatory proposals to reduce the frequency and severity of financial crises are contingent capital—funds that convert to capital in bad times—and regulation of systemic risk by bank examiners.

Systemic risk and its regulation have been much in the news recently. That said, less is known about systemic risk than would seem desirable before policymakers subject much of the economy to far-reaching regulation.

The CenFIS conference "Regulating Systemic Risk," held October 30, 2009, at the Federal Reserve Bank of Atlanta, explored what is known about systemic risk and how it surfaced in the financial crisis of 2008. Two preliminary but specific proposals for regulating systemic risk also were discussed.

Before we consider how to regulate systemic risk, it is important to know what is being regulated. In a recent post on the Atlanta Fed's macroblog, I discussed the meaning of systemic risk and concluded that a definition by George Kaufman and Kenneth Scott is a good start even though it is imprecise. Their definition states that

> *Systemic risk* refers to the risk or probability of breakdowns in an entire system, as opposed to breakdowns in individual parts or components, and is evidenced by comovements (correlation) among most or all the parts. (Kaufman and Scott 2003, 371)

Systemic risk in action

The 2008 finanical crisis and U.S. monetary policy

In my conference presentation, I discussed Kaufman and Scott's definition and their more substantive point about the sources of such risk. They suggest that systemic risks can emerge from (1) common shocks to the system, (2) successive losses along a chain of counterparties, and (3) an unexpected development that results in reassessments of the value of assets. While there was a common shock to the U.S. economy from falling house prices beginning in 2006 and 2007, this shock itself did not cause the failures and near-failures of financial firms.

Instead, the decline in the value of structured securities—in particular, collateralized debt obligations backed by subprime mortgages—and the difficulty of valuing these assets were the primary means by which losses were transmitted through the U.S. financial system. Losses and uncertainty about losses seem to have then traveled from firm to firm, engendering problems along the chains of counterparties.

In his conference presentation, James Lothian (2009) analyzed the role of U.S. monetary policy in the financial crisis. The current recession in the United States often is compared to the Great Depression, he notes, even though similarities in the economy's performance are overstated. Lothian concludes that monetary policy in the United States was very different in the two episodes, with monetary policy being a major contributing factor in the Great Depression and a stabilizing factor in the current recession. The demand for money, as measured by the velocity of money, is similar in the two episodes, but he finds no evidence of a liquidity trap. The issue facing the Federal Reserve, Lothian cautions, will be its ability to drain reserves from the banking system and avoid possible future inflation.

International regulation of systemic risk

When reviewing the financial crisis of 2008, it is natural to focus on the world's largest economy, the United States, especially for those of us who are U.S. residents. But one can learn a great deal from developments in other countries. One distinguishing difference between this conference and many others is the substantial discussion at this conference of developments in other countries.

The conference included detailed analyses of developments in Australia, Ireland, and Spain. In the brief synopsis provided here, it is impossible to do justice to the level of detail in the conference discussion of these countries' experiences. (See the conference Web page to view the presentations.) Without pretending to summarize the talks, I discuss below some pertinent observations.

Regulation need not be insular even if it is implemented at the national level. For example, rules to improve bank capital and to discourage excessive leverage can be agreed upon at the international level and implemented on the national level.

Australia has largely escaped the financial crisis. Renée Fry (2009) suggests that a conservative financial sector played a role in Australia's avoidance of a crisis, although it is not the most important factor. She believes an increase in exports to Asia probably was a more important factor than financial regulation. A large fiscal stimulus package also may have helped.

Ireland and Spain, on the other hand, are having substantial difficulties. Thomas Flavin (2009) analyzed developments in Ireland, and Santiago Carbo Valverde (2009) did the same for Spain. There are some striking similarities between the two countries. Both have unemployment rates in excess of 15 percent, and their unemployment rates are predicted to remain that high for some time. Housing prices rose substantially into 2006 and have declined on the order of 25 percent since. In both countries, residential mortgages remained on banks' balance sheets, but defaults on those mortgages are not a problem, at least so far. On the other hand, loans to residential real estate developers are a problem for banks in both countries.

In Ireland, Flavin notes, the use of wholesale funding for a substantial part of banks' balance sheets was quite important. In 2008 the Irish government provided a blanket guarantee for all liabilities of Irish banks, a guarantee that has created continuing financial problems for the government as well as substantial liabilities for Irish citizens.

Spain has not encountered the same level of problems with its banks. One important difference between Spain and Ireland is the use of dynamic provisioning by Spanish banks. With dynamic provisioning, banks set aside funds for expected losses on loans. This practice is uncommon and controversial outside Spain, Carbo Valverde notes, because it means banks do not set aside funds to cover losses as they are realized. Despite the controversy, dynamic provisioning appears to have reduced the financial difficulties that Spanish banks are facing.

Professor Lord John Eatwell (2009) discussed the international structure of regulation in the context of *macro-prudential regulation*, a newer term coined for "regulating systemic risk." In a wide-ranging talk, Eatwell outlined financial architecture and regulatory principles that he regards as important to improving the financial system and avoiding similar crises. He regards international regulation by laws to be unrealistic even though it is desirable. He suggested that international coordination of regulation can accomplish much. Regulation need not be insular even if it is implemented at the national level. For example, rules to improve bank capital and to discourage excessive leverage can be agreed upon at the international level and implemented on the national level.

Regulatory proposals to mitigate financial crises

Larry Wall (2009) and James Thomson (2009) discussed two proposals for regulation of systemic risk in the United States. Neither proposes what they regard as a cure for financial crises. Rather, they propose specific changes that would reduce the likelihood and severity of a future financial crisis and, at least as important, mitigate the effects of the too-big-to-fail policies applied to large financial institutions.

Wall proposes that banks be required to issue debt securities that convert to capital when a bank encounters financial difficulties. Effectively, banks would be required to have arrangements and funds in place to acquire additional capital when their existing capital is depleted. While different than dynamic provisioning in important respects, this *contingent capital* would play the same role of providing a cushion when losses occur.

Thomson proposes a five-tier classification system for systemically important institutions. Bank examiners would determine any specific bank's tier. Supervisory oversight would increase as a bank rose up the tiers, and specific requirements would be greater for a bank determined to be more systemically important. While Thomson's proposal is intended to be a framework for thinking about the issues, he suggests general requirements that might increase as a bank becomes more systemically important. For example, interbank exposures would be monitored and limited as a bank's counterparty exposures became more important to the stability of the banking system.

As was hoped, the conference covered a wide range of topics with detailed, informative discussion. While these analyses are obviously not the last word, their contribution is substantial.

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References

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Kaufman, George G., and Kenneth E. Scott. 2003. What is systemic risk, and do bank regulators retard or contribute to it? *Independent Review* 7, no. 3:371–91.

Presentations at the conference "Regulating Systemic Risk," sponsored by the Federal Reserve Bank of Atlanta's Center for Financial Innovation and Stability, October 30, 2009:

- Carbo Valverde, Santiago. Financial stability, systemic risk, and dynamic provisioning: The case of Spain.
- Dwyer, Gerald. Systemic risk and the financial crisis of 2008.
- Eatwell, Lord John. The international regulation of systemic risk.
- Flavin, Thomas. The U.S. and Irish credit crises: Similarities and differences.
- Fry, Renée. Australia's resilience during the GFC.
- Lothian, James. U.S. monetary policy and the financial crisis.
- Thomson, James. On systemically important institutions and progressive systemic mitigation.
- Wall, Larry. Financial stability: Contingent capital as one of the building blocks.