

The Economics of Regulating Systemic Risk

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- Systemic risk in financial markets is the risk or probability of a breakdown in the ability to transact in an economy using customary procedures.
 - Regulation can reduce systemic risk by changing the behavior of financial market participants and by making the financial system more resilient to shocks.
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Systemic risk to the financial system will be regulated. While it may seem obvious that it should be, an important question is, why? An equally important question is, how?

Real and fanciful systemic risk

George G. Kaufman and Kenneth E. Scott probably have published the best definition of systemic risk to date, namely

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)

While fine for some purposes, this definition uses one important term that is quite vague: breakdown. Can one tell with any precision whether there was a risk of breakdown in the financial system in the financial crisis of 2007–2008 for each of the following events?

- the run on Northern Rock, a bank in the United Kingdom.
- decreases in the prices and trading volume of collateralized debt obligations (CDOs)—complicated securities, many of which have been based on subprime mortgages in recent years;
- investment banks' inability to roll over overnight loans in the repo market (between financial institutions);
- financial difficulties affecting some commercial and investment banks;
- the run on prime money market funds, which hold Treasury securities and commercial paper.

A more precise way of thinking about systemic risk in financial markets is to consider it as the risk or probability of a breakdown in the ability to transact in an economy using customary procedures. This definition includes the possibility that each of the events mentioned above may have posed a systemic risk. For example, the run on Northern Rock might have affected other banks, interbank transactions, and ultimately transactions in the entire economy.¹ The run on prime money market funds was associated with a dramatic change in the demand for commercial paper, which firms use to fund their operations. This more detailed way of thinking about the issue focuses on the effects of the events on markets and people participating in those markets.²

¹ Determining whether these events actually posed a systemic risk requires careful consideration of the individual events.

² A definition that is different in plain English is “Systemic risk in financial markets is the risk or probability of a substantial increase in transactions costs in an economy.” Transactions cost is an extremely broad term as used in economics and can be interpreted as including anything meant by “breakdown in the ability to transact.”

Not every negative development in financial markets is a systemic risk. For example, a single institution's failure that does not result in other institutions' failure is a fanciful notion of systemic risk with no foundation in reality. The run on Northern Rock might not have been a systemic risk if there had been clear, predictable procedures for closing the bank and paying depositors.

Why regulate systemic risk?

The justification for the government regulating systemic risk is a common one: regulation reduces an external effect not considered by participants in the markets. Not all such risks of breakdowns in market transactions need be considered by governments. Private entities have promoted markets in many contexts, most especially financial markets. For example, stock exchanges are run by private efforts. A trade association—the International Swaps and Derivatives Association—supports documentation and legal language associated with derivatives transactions.

Not all negative events in financial markets create systemic risk.

On the other hand, many developments are sufficiently wide ranging and large that private entities may not be able to deal with the problems as well as a government can. For example, runs on banking systems are the original systemic risk that resulted in the creation of central banks in the United States and elsewhere.

Furthermore, as with runs on banking systems or the financial crisis of 2007–2008, some risks of breakdowns in transactions can have significant effects on the economy, including substantial decreases in real gross domestic product and increases in unemployment.

After the 2007–2008 financial crisis, it is natural to suppose that private firms and people are the sources of systemic risk. But they are not the only sources and maybe not the main ones (Reinhart and Rogoff 2009). Recent events in Europe have made this point dramatically. The sovereign debt problems in Greece, Ireland, and elsewhere in Europe make it plain that governments can be the source of systemic risk. The increases in interest rates and credit default swap rates for these countries pose a substantial risk to credit markets and the ability of the government to function. At least to some extent, these increases in spreads and rates are the result of decisions made by those in government. For example, Ireland's problems are largely a result of the government's guarantee of all the liabilities of Irish banks. It is not clear how such choices can be regulated other than through the ballot box.

How to regulate systemic risk

Changing behavior. One approach to regulating systemic risk is forecasting developments likely to increase systemic risk and then issuing rules to alter people's behavior and reduce those risks. Such efforts face certain difficulties. First, forecasts of systemic risk have not been notably successful so far. Second, if a successful forecast of systemic risk is followed by the right response by regulators, no financial crisis will ensue. Ironically, this success in avoiding a financial crisis leaves the regulator open to the criticism that the crisis would not have occurred anyway. Third, as one pithy observation

has it, “One person’s bubble is another person’s livelihood.”³ As a result, attempts to change behavior will meet with resistance.

Resilience. Another aspect of systemic regulation that encounters some but not all of the same problems is designing a more resilient financial system. As in the Basel III proposals, the financial system would be more resilient if banks had higher capital ratios because the banks would be able to withstand larger losses. Similarly, credible, reasonably quick resolution procedures would make closure of a single institution less of a problem.

Conclusion

Systemic risk in financial markets is the risk or probability of a breakdown in the ability to transact in an economy using customary procedures. Not all negative events in financial markets create systemic risk. For example, the orderly resolution of a single firm need not pose any risk to the financial system. On the other hand, it has long been recognized that some events such as a run on a banking system do pose such risks.

Government regulation of systemic risks to the financial system is not the only possible way to deal with systemic risk. But the risks can be sufficiently wide ranging and large that private entities are not able to deal with the problems as well as a government can.

Regulation can reduce systemic risk by changing the behavior of financial market participants and by making the financial system more resilient to shocks.

³ Paul Atkins made this remark at the Central Banking Publications conference “Managing Systemic Risk in Financial Institutions and Infrastructure” in New York City on December 2, 2010.

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