



Systemic Risk and the Financial Crisis

By Peter J. Wallison

The current financial crisis has sharpened interest—on the part of both the public and policymakers—in both stronger regulation and the extension of regulation to new areas. One of the theories for doing so is concern that the failure of one institution can, by passing its losses to others, create systemic risk. In this analysis, the current crisis is presented as an example of systemic risk becoming reality. To prevent a recurrence, greater regulation, covering a wider range of participants in the financial markets, is necessary. However, there is as yet no evidence that the current crisis was the result of systemic risk, which is characterized by a kind of contagion. Instead, the crisis appears to have arisen from the failure of traditional regulated institutions—in a particularly dramatic case of herd behavior—to limit their risk-taking. The result has been a mammoth solvency and stability problem, but one without any apparent contagion. Accordingly, the current crisis provides support for better supervision of traditionally regulated industries, but no warrant either for a systemic risk regulator or for the supervision of other participants in the financial markets that have not previously been regulated.

With the financial crisis now in full flower, many policymakers assume that new regulation is necessary to prevent “systemic risk.” For example, Barney Frank (D-Mass.), chairman of the House Committee on Financial Services, has endorsed a “systemic risk regulator” to “act when necessary to limit risky practices or protect the integrity of the financial system.” The systemic risk regulator would apparently oversee a far broader regulatory system than exists anywhere today: “To the extent that anybody is creating credit they ought to be subject to the same type of prudential regulation that now applies to commercial banks.”¹ This idea makes sense only if one assumes—as Frank apparently does—that the losses of a single firm engaged in a credit-granting activity can somehow be transmitted to others and thus engender systemic risk. But there is no reason to believe that the current crisis, as bad and as widespread as it is, resulted from systemic risk, or would be addressed by new regulation specifically directed at preventing systemic risk.

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What is systemic risk? Is the current financial crisis an example of systemic risk becoming a reality? Policy development, like the practice of medicine, is a process of diagnosis and prescription. First we have to understand what exactly we are dealing with, and then we must adopt solutions that are tailored to address it. If we want to prevent another crisis like this one in the future, we should adopt policies that are directed at that goal, not at problems we do not have. If the current crisis is *not* the result of systemic risk, it would do no good—and might do substantial harm—to adopt policies designed to curb or control it. This *Outlook* will attempt to define what is meant by systemic risk and will compare that definition to what we know thus far about the causes of the financial crisis. This is only a preliminary and tentative effort; there is much still to be learned about the causes of the crisis, but it is useful to establish a framework for judging whether what we are facing today is the result of a failure of our current regulatory system to address and contain systemic risk.

The classic case of systemic risk arises in the banking system and has been defined as “the probability that cumulative losses will occur from an

event that ignites a series of successive losses along a chain of institutions or markets.”² It envisions a cascade of losses flowing from the failure of a single large bank, brought on by the interconnections of the banking and payment systems. If a large bank cannot meet its obligations at the end of a business day, other banks—awaiting a payment from the failing bank—cannot meet their own obligations, and so on down the chain. Unless the supervisors act quickly, the result could be losses throughout the banking system and the economy; hence, a systemic event.

There is also a broader concept of systemic risk, focusing on markets rather than institutions. The Commodity Futures Trading Commission defines it as “the risk that a default by one market participant will have repercussions on other participants due to the interlocking nature of financial markets. For example, Customer A’s default in X market may affect Intermediary B’s ability to fulfill its obligations in Markets X, Y and Z.”³

What these concepts have in common is their assumption that systemic risk is a kind of contagion—that the failure of one institution or market participant is transmitted to other institutions and other markets in somewhat the same way that a disease is transmitted through contact.

The concept of contagion radiating from a single default is central to any understanding of systemic risk. Without contagion—losses cascading from one entity to many others—any economic downturn in which many businesses collapse from lack of sales could be called a systemic event, and the danger of this happening could be called systemic risk. If so, there would be a basis for regulating every business to prevent its failure from causing losses to and the failure of others.

Similarly, if there is evidence that today’s financial crisis is *not* the result of contagion—if it arose independently of whatever connections might exist between and among the affected institutions—it would be a great policy mistake to impair the interconnections. For example, credit default swaps (CDSs) have been blamed by many commentators—including some as sophisticated as George Soros⁴—for creating “interconnectedness” among financial institutions that has made it possible to transmit losses from one institution to others. If this interconnectedness is in fact a significant contributing factor to current market conditions, then serious consideration should be given to regulations that control or limit it. But if interconnectedness is not a causal factor in the current crisis, it would be a serious

error to restrict the use of CDSs, which are also very important and effective hedging and risk management tools for financial institutions and others.⁵ In fact, if the transmission of losses from one institution or market to another is

not a factor in the current crisis, restricting the use of CDSs would, on the whole, increase rather than reduce the risks of financial institutions—without doing anything to reduce significantly the likelihood of similar financial crises in the future.

The same analysis applies to the regulation of companies and institutions that are not currently regulated. If there is evidence that their default will have a sufficiently large adverse effect on others to be considered systemic, then regulation might be appropriate. But if there is no evidence of

this effect—or likelihood that it will occur—then it would be a mistake to regulate companies that do not otherwise require it and for which the tangible and intangible costs of regulation would be an unnecessary burden. For example, Frank seems to believe that all credit-granting entities should be regulated like commercial banks. This seems to have some relationship to his concern about systemic risk. Retailers routinely grant credit to customers, but it is hard to imagine that the failure of a retailer—no matter how large—would create systemic risk in any sense that that term is generally understood. In view of his position in Congress, however, Frank’s position on this question must be taken seriously. The balance of this *Outlook* will consider the causes of the current crisis and whether it is an instance of the contagion between institutions and markets that characterizes systemic risk—or something else.

Solvency, Not Liquidity

The current crisis has three noteworthy elements: It is worldwide, engulfing the economies of nearly all the developed countries. It is comprehensive in that it involves financial institutions of all kinds. And it is characterized by doubts about the stability and solvency of most of the world’s major financial institutions. The first two of these elements fit within the conventional notion of systemic risk—a widespread adverse financial or economic result springing from a default or a shock to the markets. The pervasive nature of the crisis—both geographically and in terms of the number of institutions it affects—is certainly consistent with the contagion metaphor that underlies systemic risk. But the third element is unusual and, perhaps,

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unprecedented. With the possible exception of the Great Depression of the 1930s, no prior financial crisis appears to have had its origin in doubts about the solvency—rather than the liquidity—of a substantial number of the largest financial institutions in the United States and other developed countries. Many scholars and market observers have blamed the apparent intractability of the current crisis on the failure of the Treasury and the Fed to recognize that it was a problem of solvency rather than of illiquidity.⁶ As long as there are questions about the solvency of banks and other financial intermediaries, no amount of liquidity is likely to induce depositors and counterparties to feel comfortable about making long-term commitments to them. And without these commitments, banks and others will continue to be vulnerable to runs by their depositors and counterparties.

The Troubled Assets Relief Program (TARP) was the first major effort by the government to deal with the turmoil in the financial markets as a solvency rather than a liquidity problem. By proposing to buy distressed mortgage assets from banks and others, the Treasury and the Fed apparently hoped to improve the balance sheets of these institutions and thus their capital positions. In its first use of the TARP funds, the Treasury went at this issue even more directly, requiring nine of the largest U.S. financial institutions to accept infusions of capital in the form of preferred stock. Whether any of these moves will slow the deterioration of prices or encourage banks to lend is unknown at this point.

Understanding the current crisis as a solvency problem seems correct. The underlying cause was the collapse of the housing bubble in the United States, aggravated by the fact that weak subprime and Alt-A loans were major constituents of the housing-related assets held by banks and other financial intermediaries around the world. These mortgage loans, which are held mostly in the form of mortgage-backed securities (MBS) and collateralized debt obligations (CDOs), are defaulting at unprecedented rates. The difficulty of determining the value of the underlying mortgages has caused the market for these instruments to come to a virtual halt, and it has also engendered uncertainty about the solvency of the financial institutions that hold them. Until investors and counterparties are persuaded that these institutions are solvent, they will not be stable.

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of the last six months, beginning with the bailout of Bear Stearns. According to the testimony of SEC chairman Christopher Cox, the firm was solvent and had sufficient liquid resources to continue operations only days before its imminent collapse resulted in its forced sale to JPMorgan Chase.⁷ However, in the three days from March 12 to March 14, Bear was unable to borrow funds through the collateralization of assets that had previously been acceptable for short-term loans, and the firm's liquidity position declined by almost \$17 billion⁸ as clients and counterparties withdrew their funds. This market behavior is consistent with the view that doubt about the quality of the firm's assets—and hence its long-term solvency—was the ultimate cause of its collapse.

After Bear Stearns, the Fed opened the discount window to all four remaining large investment banks—Lehman Brothers, Merrill Lynch, Morgan Stanley, and Goldman Sachs—enabling these institutions to meet whatever liquidity needs occurred. Nevertheless, in early September, Lehman encountered the same market resistance that had destroyed Bear Stearns and, without a similar rescue effort by the government, filed for bankruptcy. The Lehman bankruptcy caused the remaining investment banks to seek shelter—Merrill Lynch in a merger with Bank of America and Morgan Stanley and Goldman Sachs as financial services holding companies supervised by the Federal Reserve. In other words, in a little over six months, all five members of the rich and independent investment banking community in New York were in bankruptcy, controlled by others, or functioning under the bank-like supervisory regime of the Fed.

These events were not precipitated by a lack of liquidity. All the investment banking firms, to the extent that they could not use their assets for collateral in the market, had the option of borrowing from the Fed through the discount window, but the failure of Lehman showed that liquidity itself was not the problem; investors did not have enough confidence in the solvency of these firms to treat them as suitable counterparties. Following the collapse of Lehman, the Fed was compelled to bail out AIG, the world's largest insurance holding company, and the London Interbank Offer Rate (LIBOR) rose to unprecedented levels. Banks began hoarding cash, not only to meet customer withdrawals but also because of fear about the solvency of their bank counterparties. This condition has eased somewhat only because governments agreed to guarantee loans

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between banks. The market reaction to the Lehman collapse is itself a demonstration of the fact that contagion or systemic risk is not a factor in the current financial crisis. The sudden rise in LIBOR and the freezing of the credit markets that followed immediately thereafter had nothing to do with contagion. Banks did not stop lending to one another because Lehman filed for bankruptcy. This reaction ensued because the underlying problem is not contagion or illiquidity but rather fear that others are not or will not be solvent or stable counterparties.

No Evidence of Contagion

If the current crisis is indeed caused by counterparty and investor doubts about the solvency of most of the world's major financial institutions, it cannot at the same time be the result of systemic risk as that idea is generally understood. There is no apparent contagion. The crisis instead arose from the fact that all these institutions invested heavily in the same weak assets—primarily MBS and CDOs backed in whole or in part by subprime and Alt-A mortgages. Whatever one may call this—herd behavior is one explanation—it is not the result of contagion. There is further evidence for this conclusion in the recent settlement of CDS obligations arising out of the collapse of Lehman. The reason for the bailout of Bear Stearns is still debated, as is the reason for not bailing out Lehman, but recent events cast doubt on the claim that the Treasury and Fed pressed for Bear to sell itself to JPMorgan Chase because of fear that the CDSs on Bear's debt would cause massive counterparty losses if Bear were to default. Two potential problems were cited: losses on the CDSs written on Bear (which might cause other firms to go over the brink) or chaos associated with unwinding these losses (which might create substantial additional market instability).⁹

Bear's acquisition by JPMorgan Chase obviated the need to account for any losses on the CDSs written on Bear's outstanding debt, so we will never know whether Bear's default might have directly threatened other financial institutions. However, Lehman was a larger firm than Bear, with \$600 billion in outstanding debt on which CDSs with a notional amount totaling \$400 billion had been written. Last week, all \$400 billion in claims were settled among the CDS counterparties for a total payment of \$5.2 billion. This does not mean that \$5.2 billion was the total extent

of the losses but only that the vast majority of the losses were settled among the participants through the sale of collateral or the netting of claims on one another. The settlement was completely orderly, almost humdrum.

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Perhaps more important was the fact that AIG's CDS losses on Lehman's debt—also settled at the same time—were only \$6.2 million. AIG had been a major participant in the CDS market, and many market observers had attributed its need for a bailout immediately after the Lehman bankruptcy to the losses AIG would suffer because of CDSs it had written to back Lehman's debt. However, a spokesman for AIG noted after the settlement that the company had hedged its Lehman obligations and that these hedges almost canceled one another out.¹⁰ There is much more to learn about the role of CDSs in the financial crisis, but it is altogether clear, even now, that whatever role they played, it was

a tiny one when compared to the contribution of imprudent investments in junk mortgages and MBS.

Despite their relative newness on the financial scene, CDSs are nothing more than insurance contracts or indemnification agreements. In exchange for a regular premium payment, the party that sells protection is in effect assuming its counterparty's risk on a loan or other obligation. If A lends money to B, A bears the risk of B's default. If A wants to be protected against B's default, A enters a CDS with C, who promises to pay A if B defaults. There is nothing mysterious about this transaction. Since C is now bearing the risk of B's default, it is functionally the same transaction as if C had made the loan to B. No new risk is created; the same risk—B's obligation to A—has simply been transferred to C by contract. Financial institutions lend to one another all the time, and these loans are routinely transferred or sold. A CDS transaction is a substitute for the sale of a loan.

Why is it thought that a simple transaction like this—when called a CDS—creates some special kind of “interconnectedness” that had not existed before? If B defaults, C indemnifies A and tries to recover from B. If C hedges its risk by buying protection from D, and D does the same with E, and so on, that creates a large “notional” amount as all the obligations are added up, but in the end there is only one true loss—B's default on the loan from A. Arrangements like this have been going on in finance for hundreds of years; the CDS is simply a new way of

transferring a risk without actually selling the loan. The presence of CDSs, as shown by the Lehman settlement, does not necessarily create any market disruption or do more to create interconnectedness or risk than ordinary loan arrangements.

Conclusion

The fact that the current financial crisis is caused by doubts about the solvency of almost all of the world's major financial institutions sets it apart from any other financial crisis in history. It also casts doubt on the notion that the crisis is the result of systemic risk. There is no evidence of the contagion that is the hallmark of a systemic risk event. Instead, the world's financial institutions got into trouble the old-fashioned way: by taking unnecessary risks when acquiring assets—in this case MBS and CDOs backed in whole or in part by subprime and Alt-A loans—and not through a cascade of losses transmitted from one failing firm to another.

This suggests that to the extent that greater regulation is in prospect, it should focus on limiting the risk-taking of regulated institutions such as insured commercial banks and savings and loan associations. The failure of a large number of insured depository institutions shows that better regulation and better regulatory tools are warranted. The failure of at least two investment banks raises the question of whether investment banks should be regulated. The answer to this question would be yes, if there is evidence that the failure of a large investment bank such as Lehman caused others to fail or even to become substantially weaker. If so, that could—if large enough in effect—be an example of systemic risk. Thus far, however, there is no evidence that Lehman's failure has had any substantial adverse effect—there has been no contagion—even though a market panic resulted. If there had not been widespread concern about the financial stability of most of the world's major financial institutions, it seems highly likely that the panic itself could easily have been addressed by the Fed's action in making large amounts of liquidity available—as it has done in similar circumstances in the past—on a temporary basis.

Thus, unless there is compelling evidence of contagion, the current financial crisis does not furnish any support for regulating institutions such as investment banks, securities firms, hedge funds, private equity firms, finance

companies, leasing companies, retailers, or the myriad other financial players that currently grant credit or otherwise participate in the financial markets in one way or another. Nothing that has happened thus far in the financial crisis suggests that the failure of these organizations has had or would have any significant effect on the financial institutions—primarily insured depository institutions—for which the federal government is responsible and whose failure could result in costs for the taxpayers.

Notes

1. Stephanie Baum, "Congressman Frank Urges Creation of Risk Regulator," Dow Jones Financial News Online, March 20, 2008, available at www.efinancialnews.com/usedition/index/content/2350130123 (accessed October 27, 2008).

2. George G. Kaufman, "Bank Failures, Systemic Risk, and Bank Regulation," *Cato Journal* 16, no. 1 (Spring/Summer 1996): 20.

3. This is the definition used by the Commodity Futures Trading Commission, available at www.cftc.gov/educationcenter/glossary/glossary_s.html.

4. George Soros, "The False Belief at the Heart of the Financial Turmoil," *Financial Times*, April 3, 2008.

5. See, for example, discussion of credit default swaps in Peter J. Wallison, "For Financial Regulation, the Era of Big Government Really Is Over," *Financial Services Outlook* (June 2008), available at www.aei.org/publication28152/.

6. See, for example, Vincent R. Reinhart, "A Bill That Deserved to Pass," *The American*, October 6, 2008, available at www.aei.org/publication28743/.

7. Christopher Cox, "Testimony Concerning Recent Events in the Credit Markets" (U.S. Senate, Committee on Banking, Housing and Urban Affairs, April 3, 2008), available at www.sec.gov/news/testimony/2008/ts040308cc.htm (accessed October 27, 2008).

8. Stephen Labaton, "SEC's Role in Wall Street Crisis," *New York Times*, October 5, 2008.

9. See, for example, Shah Gilani, "The Real Reason for the Global Financial Crisis . . . the Story No One's Talking About," *Money Morning*, September 18, 2008, available at www.moneymorning.com/2008/09/18/credit-default-swaps (accessed October 27, 2008).

10. Mary Williams Walsh, "Tracking Firm Says Bets Placed on Lehman Have Been Quietly Settled," *New York Times*, October 23, 2008.