
Regulating Systemic Risk

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The ongoing financial crisis that began in 2007 has revealed a fundamental weakness in our financial regulatory system: the absence of a regulator charged with overseeing and preventing “systemic risk,” or the risks to the health of the entire financial system posed by the failure of one or more “systemically important financial institutions” (SIFIs).

Ideally, all federal financial regulatory activities should be consolidated in two agencies, a financial solvency regulator and a federal consumer protection regulator, with systemic risk responsibilities being assigned to the solvency regulator. As a second-best option, clear systemic risk oversight authority should be assigned to the U.S. Federal Reserve (Fed). Either of these options is superior to creating a new agency or regulating systemic risk through a “college” of existing financial regulators.

The systemic risk regulator (SRR) should supervise all SIFIs, although the nature and details of this supervision should take account of the differences in types of such institutions (banks, insurance companies, hedge funds, private equity funds, and financial conglomerates). The SRR should also regularly analyze and report to the U.S. Congress on the systemic risks confronting the financial system.

There are legitimate concerns about vesting any financial regulator with such large responsibilities. But as long as there are financial institutions whose failure could lead to calamitous financial and economic consequences, and thus invite all-but-certain federal rescue efforts if the threat of failure is real, then some arm of the federal government must oversee systemic risk and do the best it can to make that oversight work.

Although the United States should continue to cooperate with governments of other countries in reforming financial systems, notably through the G-20 process, policymakers here should not wait for international agreements to be in place before putting our own financial house in order.

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The initial draft of this article was prepared before the Obama administration offered its comprehensive plan in March 2009 for repairing the nation's financial regulatory system. Some of the ideas discussed in this article are found in that plan; others are not. In any event, in preparing the final version of the article, I have deliberately chosen not to substantially rewrite the initial draft and indicate at every relevant place where the thoughts expressed here agree or conflict with the administration's plan or with other reform proposals that have since been proposed by other political leaders and experts.

Introduction

There is a vigorous debate under way in the wake of the current economic and financial turmoil about whether the U.S. Congress should vest one or more financial regulatory agencies with the ability to monitor and attempt to reduce "systemic risk"—the risk that one or more failures of key financial institutions or markets could wreak havoc on the overall financial system. For example, the inability of a large financial institution to pay its many creditors could force these creditors into bankruptcy or cause them to significantly curtail their activities. Likewise, if the short-term uninsured creditors of one large financial institution are not paid, short-term creditors of other similar financial institutions may be unwilling to roll over their loans or extend new credits, bringing down these other institutions. The economy could be severely damaged through either of these channels.

It was the fear of systemic risk, after all, that motivated the various recent federal rescues: the forced sale of Bear Stearns to JPMorgan Chase, the Fed takeover of AIG, the conservatorships established for the government-sponsored mortgage enterprises Fannie Mae and Freddie Mac, the temporary expansion of deposit insurance for bank deposits, the extension of federal guarantees to money market funds, and the creation of the Troubled Asset Relief Program (TARP) to support the banking system. Likewise, the Fed has greatly expanded its balance sheet—lending in a variety of innovative ways and purchasing assets—in an effort to keep fear from paralyzing the nation's credit markets.

It is clear that we never again want to see the economy come as close to experiencing a systemic meltdown as we have during the past year. And yet, as Fed Chairman Ben Bernanke and Treasury Secretary Timothy Geithner, among others, have pointed out, our current financial regulatory structure is institution specific. That is, regulators are charged with overseeing the safety and soundness of individual financial institutions, but none is held responsible for monitoring and assuring *systemwide* stability.

Chairman Bernanke has urged Congress to fill this gap in our financial regulatory system by establishing a systemic risk regulator. He has not claimed that the Fed should be that regulator but that at the very least it can play a central role in any future monitoring and regulation of systemic risk. I agree.

In this article, I set out the case for having a systemic risk regulator; discuss four options regarding which agency or agencies might be assigned that role; describe some of the key functions that such a regulator could be expected to perform; and answer objections to authorizing a risk regulator. I conclude by discussing ways to reduce systemic risk other than by regulating SIFIs, the main object of a systemic risk regulator.

The Case for a Systemic Risk Regulator

The Fed is already *de facto* responsible for containing systemic risk through its regular monetary policy activities. After all, a principal reason Congress created the Fed was to act as a lender of last resort to provide liquidity to the economy when others would not.

The clear challenge raised by recent events (especially the extraordinary bailouts of creditors arranged by the Fed and the Treasury in 2008–2009) is to find better ways of preventing threats to systemwide financial stability in the first place. In particular, if the SIFIs whose creditors were rescued had not suffered the kind of credit losses that we have seen or if they had not been as leveraged as they were, the various financial rescues would not have been necessary. It is for this reason that stronger regulation of SIFIs is called for.

In theory, a different monetary policy—one aimed at containing asset price bubbles—might also have prevented what has happened. But monetary policy is a very blunt tool for preventing systemic risk, especially when that risk arises in a specific sector of the economy, such as mortgage origination and the insurance of mortgage-related securities—through bond insurance or derivatives such as credit default swaps (CDS). Thus, the Fed could have restrained the housing price bubble in the past decade by running a far less expansionary monetary policy than it did, but the Fed would have then done so at the cost of slower economic growth and higher unemployment throughout the period. A more targeted regulatory approach, one that would have imposed minimum down-payment and income verification requirements on mortgage borrowers, could have been equally effective but without the collateral impacts on overall economic activity.

Nonetheless, there are limits to what can be done by, and realistically expected of, any SRR. Systemic risk will exist as long as there are financial institutions sufficiently large and interconnected with the rest of the financial system and the economy such that their failure could lead to many other failures or significant financial disruption. It is unrealistic, therefore, to expect that systemic risk can be eliminated entirely.

Likewise, history has shown time and again that asset price bubbles are endemic to market economies. Often, bubbles are associated with some new technology, which many entrepreneurs and investors embrace in the hope of being one of the few winners after others are shaken out by competition. Well before the internet

boom and bust, bubbles occurred with automobiles, telephone companies, and other breakthrough technologies. It would be a mistake for government to try to second-guess the market each time one of these technological bubbles occurs and to try to snuff it out or contain it. In the process, government could snuff out the next Microsoft, Apple, Intel, or Google.

What has made this crisis different from previous technological bubbles, however, *is that it was preceded by an asset (housing) price bubble that was fueled by a combination of excesses in the financial sector*: imprudent mortgage lending, excessive leverage by financial institutions, and imprudent insurance or insurance-related activities (unsound bond insurance underwriting and inadequate collateral and capital backing CDS in the case of AIG). These are the kinds of activities to which an SRR can and should alert Congress, other regulatory agencies, and the public. More broadly, as I discuss later, the SRR should have special oversight responsibilities with respect to SIFIs to ensure that they have the financial resources—both capital and liquidity—to withstand reasonably severe adverse economic shocks, both to the economy generally and to their important counterparties.

Choosing the Systemic Risk Regulator: The Options

Which agency should be the SRR? I see four alternatives: a new consolidated financial solvency regulator, the Federal Reserve, a new systemic risk regulatory agency, or a college of existing financial regulators.

Option 1: A New Consolidated Financial Solvency Regulator.

Ideally, Congress would consolidate our current multiple financial regulatory agencies into just two: one for solvency, the other for consumer protection. The solvency regulator would oversee and supervise all banks (and thrifts, assuming their separate charter is retained, which I believe it should not be) and systemically important insurers.¹ The solvency regulator would also have a division specially charged with oversight of all SIFIs. The consumer protection regulator would combine the current activities of the U.S. Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC), the current consumer protection activities of the federal banking agencies, and also the relevant financial consumer protection responsibilities of the Federal Trade Commission (FTC).

The Treasury Department under Secretary Henry Paulson outlined a similar plan for the Fed, except for designating the Fed as a separate SRR, with broad but ill-defined powers. Many have compared the Fed in this role with a “free safety” defensive back in football: It would have broad discretion to pick up the “uncovered man,” or in this case the systemic financial issues that otherwise might fall through the cracks of other regulators.

¹At the time of the final draft of this article, October 2009, Senator Dodd (chairman of the U.S. Senate Banking Committee) was backing a single prudential regulator.

The advantage of this first option is that it is clean and logical. It would eliminate current regulatory overlaps and jurisdictional fights, which are now supposed to be ironed out by the President's Working Group on Financial Markets.

Of course, under any systemic regulatory regime, the Fed may still have to act as a lender of last resort for specific institutions (as it did for AIG). For this reason, the Fed should have regular consultations and interactions with the solvency regulator, including the right to receive in a timely manner all information about SIFIs that it believes necessary. These interactions would inform the Fed's monetary policy activities and would ready the Fed for any rescues that might be required (although some of the planning for these events can and should be done beforehand, as will be discussed in the next section).

But as President Truman's famous "the buck stops here" sign makes amply clear, in any organization, the buck must stop somewhere. Otherwise, not only will regulators be prone to fight, but also regulated financial institutions can be confused and subjected to conflicting demands, especially at times of financial stress (according to recent press accounts, this appears to be a significant problem for Citigroup and possibly other banks that have received TARP funds).² Under this first ideal option, therefore, the buck-stops-here principle means that the solvency regulator, and not the Fed, would have the clear authority and responsibility for overseeing all federally regulated financial institutions, including SIFIs. The solvency regulator would also be responsible for producing regular reports to Congress about systemic risk (drawing on the expertise of the Fed and the President's Council of Economic Advisers).

Option 2: The Federal Reserve. If history is any guide, the financial regulatory agencies will not be as radically consolidated as I envisioned in the first option. Accordingly, a second-best solution is to assign systemic risk oversight to the Federal Reserve System. After all, the Fed is a lender of last resort to financially troubled SIFIs. Furthermore, the Fed's monetary policy goals can be frustrated or diverted by the failure of such institutions. As a result, the Fed is a logical choice for the SRR if a single prudential regulator is not established.

In my view, if the Fed is chosen as the SRR, it should not be as a "free safety" as envisioned by the Paulson Treasury. Giving the Fed broad but vague responsibilities is a recipe for agency infighting before the fact, and for finger pointing after the fact. Put simply, the free safety model violates the buck-stops-here principle. Instead, if the Fed is assigned systemic risk regulatory responsibilities, then it should have sole authority over solvency and associated reporting requirements relating to these institutions.

²See Monica Langley and David Enrich, "Citigroup Chafes under U.S. Overseers," *Wall Street Journal* (25 February 2009):A1.

Admittedly, assigning oversight of systemic risk, and specifically of the activities of SIFIs, to the Fed is not without significant risk, but in my view, most or all of these challenges can be met. One such risk, as some critics of this option have pointed out, is that making explicit the Fed's responsibility for preventing risk could compromise its mandate to pursue the best monetary policy. For example, as I noted earlier, the Fed could clamp down on asset bubbles but in the process generate higher unemployment. Conversely, in bailing out creditors of failed institutions or in an effort to provide liquidity to the market during a financial crisis, the Fed could lay the groundwork for future inflation.

But the reality is that the Fed already has *implicit* if not *explicit* authority for containing systemic risk; that is, after all, one of the main jobs of a lender of last resort. *Giving the Fed the appropriate regulatory tools to contain the risk posed by SIFIs would make its monetary policy job easier, not harder.* Thus, had the Fed tightened standards for subprime mortgage origination earlier in the decade, it would not necessarily have needed tighter monetary policy to restrain housing price inflation.

A related concern is that providing the Fed with explicit systemic risk responsibility could compromise its independence, which evidence has shown to be important for carrying out effective monetary policy, especially when the Fed tightens money in order to contain inflation. The argument here presumably is that Congress and/or the president would be emboldened to criticize and thus effectively constrain the Fed in its monetary policy activities if the Fed were to fall short in its regulatory duties. The response to this argument is that the markets clearly would frown upon political attacks on the Fed's independence. This is why presidents have learned to refrain from criticizing the Fed and why I believe Congress keeps its hands off as well.

There is more substance to the critique that Congress and/or the president could put pressure on the Fed in carrying out not its monetary duties but its *regulatory* activities. Specifically, in the future, it is quite possible, if not to be expected, that SIFIs under the regulation and supervision of the Fed could enlist some in Congress and or the administration to inappropriately lighten the Fed's regulatory stance when it may be ill-advised to do so or conversely to refrain from tightening its regulatory standards to keep a bubble from expanding. But this political risk already exists under the current regulatory structure, and it is hard to say how it would be worse if the Fed were explicitly assigned systemic risk oversight duties. Furthermore, the Fed or any SRR can insulate itself from political pressure by introducing a more automatic system of countercyclical capital standards than now exists, another topic discussed shortly.

Yet another fear that might be lodged against the Fed is that it might be excessively risk averse and regulate too heavily. Given what has just happened, any agency given systemic risk responsibility is likely to be risk averse (and to some degree, appropriately so). This objection goes more to regulation per se, not just by the Fed.

Still another challenge for the Fed, if given systemic responsibility, would be to build a staff appropriate to the task. Critics will argue that the Fed now has expertise to supervise only banks, not other financial institutions that might be deemed to be SIFIs (such as large insurers, hedge funds, and private equity funds), and that for this reason, it is not an appropriate SRR. But this same critique applies to any agency that would be given solvency regulatory duties with respect to any nonbanks not now regulated at the federal level.

In any event, the alleged staffing problem is a solvable one, especially in the current job market, which has seen layoffs of many qualified individuals in the financial sector. Some of these individuals would be grateful for secure, interesting employment at an SRR. To anticipate a potential objection to relying on private sector expertise, not everyone who once worked in finance is a crook or is responsible for our current mess. The Fed (or any SRR) should also be able to draw supervisory personnel overseeing large banks, in particular, from the Office of the Comptroller of the Currency (OCC), which already supervises these institutions. In addition, law and accounting firms, among others, would be fertile sources of potential new regulatory recruits.

Finally, some may fear that because the Fed's budget is effectively off-limits to the president and to Congress—the Fed pays its expenses out of the earnings from its balance sheet and returns the excess to the Treasury—giving the Fed more regulatory responsibility would permit it to exercise too much discretion and to spend too much money without effective political oversight. If Congress believes this to be a significant problem, it could always wall off and subject the purely regulatory (and related research) functions of the Fed (funding them through assessments for supervisory costs on the SIFIs) to the annual appropriations process while allowing the Fed to retain its current budgetary freedom with respect to its monetary policy functions.

Option 3: A New Systemic Risk Regulatory Agency. A third option is to create an entirely new systemic risk regulatory agency, whether or not the other financial regulatory agencies are consolidated in some manner. As with the first option, the Fed could have an advisory role in this new agency and should in any event be given the same timely access to the information collected by this agency as the agency itself has.

A principal objection to this approach is that it would add still another cook to the regulatory kitchen, one that is already too crowded, and thus aggravate current jurisdictional frictions. This concern would be mitigated by consolidating the financial regulatory agencies, as in the first option. But still, the activities of an SRR are fundamentally identical to the solvency regulatory functions now carried out by the banking agencies, including the Fed. Why go to the trouble of creating yet another agency with skills similar to those that already exist?

Option 4: A College of Existing Financial Regulators. A fourth option is to vest systemic risk regulatory functions in a group or “college” of existing regulators, perhaps by giving formal statutory powers to the President’s Working Group on Financial Markets as well as additional regulatory authority for SIFIs that are not currently regulated by any federal financial regulatory agency (insurers, hedge funds, and private equity funds). This option may be the most politically feasible—because it does not disturb the authority of any individual financial regulatory agency while augmenting their collective authority—but it is also the least desirable in my view.

A college of regulators clearly violates the buck-stops-here principle and is a clear recipe for jurisdictional battles and after-the-fact finger pointing. It also keeps too many cooks in the regulatory kitchen and thus invites coordination difficulties. Admittedly, creating a college of regulators may reduce these problems, but it would not eliminate them.

As of October 2009, the supervisory college or council idea appears to have the most political traction, largely because of widespread concerns in Congress about concentrating too much authority in the Fed and also because of criticism that the Fed failed in its supervisory duties in the run-up to the crisis (an unfair critique, in my view, because all financial regulators, federal and state, bear their share of responsibility).

Functions of the SRR

It is one thing to identify the SRR; it is quite another to define precisely what it is supposed to do. Given the scope, importance, and complexity of the task, it would be best if Congress drafted any authorizing legislation in broad terms and permitted the designated agency to fill in most of the details by rulemaking or less formal guidance, subject to congressional oversight. Nonetheless, certain key issues—and tentative answers for each—can be anticipated now.

First, the SRR’s mission must be clear: to minimize the sources of systemic risk or to reduce such risk to acceptable levels. For reasons already given, the goal should not be to *eliminate* all systemic risk; it is unrealistic to expect that result, and an effort to do so could severely constrain socially useful activity.

Second, there must be criteria for identifying SIFIs. The Group of Thirty has suggested that the size, leverage, and degree of interconnection with the rest of the financial system should be the deciding factors, and I agree.³ The test should be whether the combination of these factors signifies that the failure of the institution poses a significant risk to the stability of the financial system. The application of this definition would cover not only large banks (for starters, the nine largest institutions that were required to accept TARP funds at the outset) but also large

³Group of Thirty, “Financial Reform: A Framework for Financial Stability” (January 2009).

insurers and depending on their leverage and counterparty exposures, hedge funds and private equity funds. It is also conceivable that one or more large finance companies (nondepository lenders, such as GE Capital, which are funded by commercial paper rather than deposits) could meet the test. And presumably the major stock exchanges and clearinghouses, as well as the contemplated clearinghouse(s) for CDS, would qualify.

To be sure, no hedge fund or private equity fund in recent years has failed in a way that endangered the financial system—although the collapse of Long-Term Capital Management (LTCM) in 1998 provided a sufficient systemic scare that the Federal Reserve helped orchestrate a private sector rescue of that particular hedge fund. The problem now is what regulators *do not know* about the systemic risks posed by any one or more hedge or private equity funds because there is no comprehensive reporting by these funds currently in place. Accordingly, one job for the SRR would be to work with an appropriate federal financial regulator—presumably the SEC or its successor (a merged agency with the CFTC or a broad consumer protection regulator)—to establish reporting requirements that would enable the SRR to identify if any of these funds indeed poses a significant systemic risk. Had we had such a system in place well before LTCM grew to be so leveraged, it is possible, if not likely, that that fund would never have been allowed to put itself in a position where it could blow up. The problem now is that we really do not know if there is another LTCM in waiting.

As for the regulation of insurance, it is possible a number of our largest life and property/casualty insurers would satisfy the SIFI criteria and thus should be regulated by the SRR. *This would mean that some insurers would be regulated for solvency purposes at the federal level for the first time.* In my view, other insurers (excluding health insurers) should be given the option to be regulated at the federal level as well (although not by the SRR but by a new general financial solvency regulator, or failing the creation of such a body, then by a new office of insurance regulation analogous to the OCC for banks).

It is critical, however, that federal laws preempt the application of state laws and rules, such as rate regulation, to federally regulated insurers. Otherwise, states would be too easily tempted to force insurers to charge rates below actuarially appropriate levels, knowing that insurer solvency is no longer a state problem but a federal one. Where rate suppression exists, it can endanger the solvency of insurers and/or encourage them to cut back or drop their coverage, as a number of insurers already have done in Florida. Neither outcome is in consumers' interest. It is time to entrust the pricing of insurance, an industry with a low degree of concentration, to the marketplace, as is the case for other financial and nonfinancial products.⁴

⁴Robert E. Litan, "Regulating Insurance after the Crisis," Initiative on Business and Public Policy at Brookings, Fixing Finance Series, 2009-02 (4 March 2009): www.brookings.edu/papers/2009/0304_insurance_litan.aspx.

Third, the process for identifying SIFIs should be clear. Institutions so designated should have some right to challenge, as well as the right to petition for removal of that status, if the situation warrants. For example, a hedge fund that is initially highly leveraged should be able to have its SIFI designation removed if the fund substantially reduces its size, leverage, and counterparty risk.

Fourth, the nature of the regulatory regime for SIFIs must be specified. Here I principally have in mind standards for capital (leverage) and liquidity (on the asset and liability sides of the balance sheet) as well as reporting requirements both for the public and for the regulator (the latter should be able to receive more detailed and proprietary information than is appropriate for the public, such as the identity of counterparties and the size and nature of the exposure to specific counterparties). These requirements should take account of differences in the types of institutions and their activities. For example, what is an appropriate capital and liquidity standard for banks is likely to be different from what is appropriate for systemically important insurers, such as hedge funds, private equity funds, and clearinghouses and exchanges.

Broadly speaking, however, because of the systemic risks that SIFIs pose, the SRR should begin with the presumption that the capital and liquidity standards for SIFIs should be *tougher* than those that apply to financial institutions that are not SIFIs. Tougher requirements are also appropriate to meet the obvious objection that identifying SIFIs in advance leads to moral hazard. Appropriate regulation is required to offset this effect.

In this regard, the SRR should also consider reducing the pro-cyclicality of current capital requirements—which constrain lending in bad times and fail to curb it in booms—but only if minimum capital requirements (at least for SIFIs) are gradually increased in the process and if the criteria for moving the standards up or down are clearly announced and enforced. Otherwise, if regulators have too much discretion about when to adjust capital standards, they are likely to relax them in bad times but buckle under political pressure to lower them or at least not to raise them in good times. A clear set of standards for good times and bad would remove this discretion and also insulate the regulators from undue pressure to bend to political winds when they should not.

Fifth, the SRR will need to supervise the institutions under its watch not only to ensure compliance with applicable capital and liquidity standards but, as suggested by the Group of Thirty, also to ensure that the institutions are adhering to best practices for risk management, including daily, if not hourly, exposures to their largest counterparties.⁵

⁵In this regard, the SRR should draw on the excellent risk management practice suggestions offered by the private sector Counterparty Risk Management Policy Group (CRMPG) and the Institute of International Finance.

Sixth, as we have all witnessed, regulators are human beings, capable of mistakes. It is unrealistic to expect them to be clairvoyant, regardless of any new or more-intensive training they receive or new blood brought into their ranks as a result of this current crisis. For this reason, it is absolutely essential that regulators look to *stable sources of market discipline* to provide market-based signals of when institutions under their watch may be developing problems. By “stable,” I mean capital that cannot easily run, like uninsured deposits in a bank, or commercial paper, or short-term repurchase agreements (repos) for other types of financial institutions. Common shareholders also cannot “run”—by demanding a return of their funds—but they do not have the ideal risk profile for discouraging imprudent risk taking by managers because they receive all of the upside while having limited downside risk.

Until federal authorities guaranteed the previously uninsured, unsecured long-term debt, or subordinated debt, issued by banks (and the housing government-sponsored enterprises Fannie Mae and Freddie Mac), this instrument had all the right characteristics. Such debt has no upside beyond the interest payments it promises, and thus its holders are likely to be more risk averse than common shareholders (or certainly more than insured depositors). Under current bank capital rules, however, banks are allowed but not required to issue such debt. If there were such a requirement, then the interest rates on this debt would provide important early market-based signals to regulators about the possible deterioration in the bank’s health.

But now that the government has established the principle that subordinated debt of large banks will be protected in a crisis, regulators need to be creative in thinking of other ways of harnessing stable market discipline. In September 2009, the Shadow Financial Regulatory Committee (of which I am a member) proposed two interesting alternatives: (1) The Treasury could create a “prediction market” for future bailouts of institutions by selling a failure prediction contract (FPC) that pays out in the event a bank (or another type of financial institution) fails, is bailed out, or is taken over by regulators; and/or (2) regulators could require large financial institutions to issue a bond, analogous to catastrophe bonds that are now sold by insurers or reinsurers, that would not be repaid if the aforementioned events occur.⁶ The prices of the proposed FPC or of the bond would provide market-based signals of financial danger that would not be distorted by the prospect of future government bailouts; to the contrary, the instruments would take such a possibility explicitly into account and price it.

Seventh, systemic risks associated with the CDS market must be addressed, as the failure of AIG so clearly demonstrates. A clearinghouse would permit offsetting CDS contracts to be netted out against each other while making the

⁶Shadow Financial Regulatory Committee, “Reducing Interference with Accounting Standards and Devising Securities to Price Moral Hazard,” Statement No. 277 (14 September 2009): www.aei.org/paper/100048.

counterparties to the contract responsible to the clearinghouse rather than to each other. At this writing, several CDS clearinghouses are approved or nearly approved, which should somewhat mitigate the risk posed by the failure of one or more large CDS issuers in the future. But the clearinghouses themselves must be well capitalized and have sufficient liquidity to meet their obligations, which is why they should be regulated as SIFIs as well.

Yet even a well-capitalized and supervised central clearinghouse for CDS and possibly other derivatives will not reduce systemic risks posed by *customized derivatives* whose trades are not easily cleared by a central party (which cannot efficiently gather and process as much information about the risks of nonpayment as the principals themselves). The best solution to this problem is to require the SEC and CFTC, possibly in conjunction with the SRR, to set minimum capital and/or collateral rules for sellers of these contracts. At a minimum, more detailed reporting to the regulator by the participants in these customized markets should be on the table.

Finally, all SIFIs under the watch of the SRR should be required to file an “early closure and loss sharing plan”—in effect, a prepackaged bankruptcy plan without the extensive, costly, and time-consuming bankruptcy process itself—that would go into effect upon a regulatory determination that the institution is troubled but not yet insolvent. In effect, we have had such a prompt corrective action (PCA) system for banks since the passage of FDICIA (Federal Deposit Insurance Corporation Improvement Act) in 1991. As this crisis has illustrated, PCA has not worked perfectly for banks, but it did force the regulators to induce many banks at an early stage of the crisis to raise capital from the private markets (before they effectively shut down). This is a better outcome than what occurred in the 1980s when regulators exercised “regulatory forbearance” when confronted with the threatened failure of the nation’s largest banks because of their troubled sovereign debt and other loans. The fact that PCA did not keep the largest banks from having to be rescued by the TARP is an argument for raising the threshold at which early corrective action is required, not for abandoning the concept of mandated early intervention.

Accordingly, high on the “to do” list of any future SRR is to extend PCA to all the SIFIs under its watch. This could be implemented by imposing minimum early intervention standards for all SIFIs, taking account of the differences in their businesses, or by accepting and then negotiating such early closure plans with the individual institutions. Whatever course is taken, the process must produce publicly announced statements by the SIFIs that make clear how losses of uninsured parties, including those among affiliates of the SIFI itself, are to be allocated in the event of regulatory intervention. The early intervention or closure plans should also envision a government-appointed conservator running the institution, with instructions to work with regulators to come to the least-cost resolution (by sale to other parties, by separation into a “good bank/bad bank” structure, or by other means).

The SRR need not, and arguably should not, be the institution that administers the resolution of failed institutions. This job could be handled by the existing FDIC (Federal Deposit Insurance Corporation), which has expertise in these matters, or by creating a new asset disposition agency of which the current FDIC would be a core part.

Complementary Approaches to Reducing Systemic Risk

Even if systemic risk is to be more systematically regulated, it would be a mistake to put all of our faith in any one regulator (or college of regulators) to do all the work. Like investment professionals who counsel not putting all one's financial eggs in one basket, policymakers should use other regulatory or policy "baskets" to supplement and reinforce the measures undertaken by the risk regulator.

Early Warning. For example, bank regulators, including the systemic risk regulator, should be required to issue regular (annual, perhaps more frequent or as the occasion arises) reports outlining the nature and severity of any systemic risks in the financial system. Presumably, such reports would put a spotlight on, among other things, rapidly growing areas of finance because rapid growth tends to be (but is not always) associated with future problems. Economists have recently been working hard on how to identify asset bubbles, and although the results are still not perfect, economists seem to be improving their capabilities. In my view, bubble forecasting is not much more prone to error than hurricane forecasting is. We engage in the latter, so we ought to start taking warnings of the former more seriously.

Establishing early warning systems does not necessarily mean that the Fed should alter its monetary policy to prick bubbles in formation. The virtue of regulation for dampening bubbles is that it can be more targeted and surgical than the blunt instruments of open market operations or changes in the discount rate.

A legitimate objection to an early warning-based regulatory system is that political pressures may be so great that policymakers will ignore them. In particular, the case can be made that if warnings about the housing market overheating had been issued by the Fed and/or other financial regulators during the past decade, few would have paid attention. Moreover, the political forces behind the growth of subprime mortgages—the banks, the once-independent investment banks, mortgage brokers, real estate developers and buyers, and everyone else who was making money off subprime originations and securitizations—could well have stopped any countermeasures dead in their tracks.

This recounting of history might or might not be right. But the exact manner in which the recent crisis unfolded should not matter. The world has changed with this crisis. For the foreseeable future, perhaps for several decades or as long as those who have lived and suffered through recent events are still alive and have an important voice in policymaking, the vivid memories of these events and their

consequences will give a future systemic risk regulator much more authority with which to warn Congress and the public of future asset bubbles or sources of undue systemic risk.

The SRR and other financial regulators should explore ways to encourage the largest financial institutions in particular, and indeed all financial actors, to tie compensation more closely to long-term performance than to short-term gain. Clearly, had such compensation systems been in place earlier this decade, the volume of unsound subprime mortgages would have been far lower.

The challenge is to figure out how best to encourage long-term compensation. Exempting financial institutions from the antitrust laws so that they can agree on long-term compensation schemes is not a good idea and could open the floodgates to petitions for other exemptions. If we keep the current, complicated system of bank and insurer capital standards (which I criticize later), one could think of setting modestly lower capital requirements for institutions that tie pay to long-term performance. My preference, however, is for regulators to take this issue into account in their review of an institution's risk management controls. All other things being equal, institutions with long-term performance packages are more likely to prudently manage their risks.

I am less enthusiastic and indeed skeptical about two other ideas for constraining future bubbles. One such idea is to subject new financial products to safety and efficacy screening before permitting them to be used in the marketplace (similar to what the U.S. Food and Drug Administration does for products). This may sound nice in theory, but it is likely to be much more problematic in practice. For one thing, it is virtually impossible to predict in advance of the introduction of a new product how it will affect the economy, positively or negatively. Because regulators will be blamed for products that are later viewed to be unsound but will get little or no credit for socially productive innovations, the regulatory impulse under a prescreening system will always be to say "no." This would introduce an anti-innovation bias into U.S. finance, which however much it has been maligned because of this crisis is nonetheless a prime U.S. competitive asset that should not be quashed but steered in a more productive direction.

The better approach for addressing the risks of financial innovations, in my view, is to regulate them in a targeted fashion if they later prove to be dangerous, much as we regulate consumer products. Had we imposed a prescreening system on automobiles or airplanes, for example, objections certainly would have been raised that each technology could lead to unintended deaths and for that reason each could have been banned. And in fact, at the outset, each of these industry's products was unacceptably dangerous for most consumers; they quickly became much safer as the products were improved. The same is even true for the internet; one easily could have imagined early on that criminals and terrorists would take advantage of it, just as they use our highways, banks, and other accoutrements of

daily life. Banning the internet, or more accurately its commercial use, would today seem unthinkable, but in a prescreening environment, it is impossible to know what would have happened.

Finally, it may be tempting to impose size limits on financial firms in addition to limits on leverage. Through the antitrust laws, we already have something of this kind but only if mergers result in an excessive degree of market concentration, or in the case of a monopoly only if the firm abuses its market dominance. There are well-established and defensible criteria for applying these rules. In contrast, I know of no nonarbitrary way to limit any financial institution's size.

In fact, further consolidation among financial institutions is one likely outcome of the current turmoil. Some might say that this will aggravate the systemic risk problem. It may, and it may not. Some of the institutions merging may already be so large as to be SIFIs. If the system results in mergers of SIFIs, we are likely to have fewer of them to watch over. Which is better: 10 banks, each of which may be considered to be an SIFI and thus in need of extra scrutiny, or just 5 of them but twice the size? Frankly, I do not know, and I know of no way of being sure which scenario poses the most systemic risk.

In the end, our world is complex, and we will inevitably have large financial institutions whose failure poses risks to the rest of the economy. The best we can do is harness our best regulatory resources and encourage stable market discipline in an effort to reduce the likelihood that any one of them could fail and to limit the concentrations of counterparty risk of these institutions. In addition, the financial resolution authority should be instructed to resolve troubled SIFIs in ways that minimize effects on financial concentration—breaking them up and selling the pieces if feasible and not unreasonably costly.

International Cooperation. The subprime mortgage crisis has triggered widespread economic damage in the rest of the world, demonstrating that, if there was any doubt about this before, the financial system today is highly globalized and interconnected across national boundaries. It is primarily for this reason that the Bush administration agreed to the G-20 meeting held in Washington, DC, in November 2008 and why the Obama administration has continued to engage the G-20 in constructive dialogue about improving the global financial regulatory system. In principle, there is great attractiveness to at least one of the premises of the G-20 effort, namely, that because finance is now global, the rules governing finance also should be global, or at the very least harmonized among the major countries. Some advocate a further step: overseeing the entire financial system, or at least the large international SIFIs, through a global regulator.

Both ideas are problematic. Our recent experience with the current bank capital standards developed by the Basel Committee—the so-called Basel II rules—demonstrates why.

The Basel II revisions took roughly a decade for the participating countries to debate and finalize, and by the time they were done, they were essentially irrelevant because the banking crisis had already begun. Beyond the excessive time that is inherent in any international rulemaking process is the inevitable complexity that such efforts are likely to entail. The Basel II rules eventually grew to more than 400 pages of complex rules and formulae, none of which is necessary. We would have been far better off over the past decade with a simple (but tougher) leverage requirement for our largest financial institutions coupled with a subordinated debt requirement that could not be overridden by government guarantees.

Meanwhile, the leading financial centers of the world—including the United States—are simply not ready to cede regulatory oversight to a new global body that does not even exist. If the politics that went into the development of the Basel standards are any guide—and they should be—a global regulator would be susceptible to the kind of bureaucratic and political intrigue that is out of place, and frankly dangerous, in today’s fast-paced financial environment.

The United States and other countries nonetheless still have much to learn from each other in the way they regulate and supervise financial institutions and markets. Thus, I support a G-20 process that affords opportunities for cross-pollination of views. We also need coordination among central banks and finance ministries, of the sort that the Basel Committee already affords, especially during crises.

But when it comes to reform, the guiding principle should be one adopted recently by the Conference Board of Canada in issuing its recommendations for financial reform: “Think Globally, Act Locally.”⁷ It is true that failures in U.S. regulation and oversight were major causes of the current global financial crisis (although it has since come to light that there were failures elsewhere, too, that have amplified the effects of the crisis). We should not wait, and indeed cannot afford to wait, for international consensus to fix our system. We clearly do not need or want another decade-long Basel-like process to reach consensus on reform. We can and should do the fixing on our own.

Answers to Anticipated Objections

There will be plausible objections to implementing systemic risk regulation and putting one regulator or a group of them explicitly in charge. Nonetheless, I believe each can be answered.

⁷The Conference Board of Canada, “International Financial Policy Reform and Options for Canada: Think Globally, Act Locally” (February 2009): www.conferenceboard.ca/documents.aspx?DID=2938. The phrase originates with the environmental movement but applies likewise to financial risk management.

To begin, the most obvious objection is that identifying specific institutions will create moral hazard because it will effectively signal to everyone that if these institutions are threatened with failure, the federal government will come to the rescue of at least their short-term creditors and counterparties. These critics presumably argue that it is better to return to the policy of “constructive ambiguity” that reigned until this crisis hit: Better to keep market participants guessing about whether they will be protected in order to induce them to monitor the health of the institutions with which they do business and thereby discourage imprudent risk taking by the managers of the institutions.

Well, guess what? In light of the extraordinary bailouts over the past year, constructive ambiguity with respect to the government’s protection of creditors of large financial institutions is dead. The only large troubled institution whose creditors took a hit during this period was Lehman Brothers, and I believe many policymakers, in private at least, will admit that was a mistake (although some also may continue to say that no federal entity had the legal authority to rescue Lehman’s creditors).

In short, there is no turning back. We now know that at least the short-term creditors of large financial institutions will be bailed out if the institutions run into trouble. Given this condition, we should face the new set of facts and do our best to provide better capital and liquidity cushions under those institutions in advance. That is one answer to the moral hazard charge. A second answer, as outlined earlier, is that the SRR should consider imposing an extra dose of market discipline on SIFIs that is not required for smaller institutions.

A related, second objection to regulating SIFIs is that it will not work: Namely, why would the SRR do any better overseeing SIFIs than our current bank regulators who clearly failed to stop our largest banks from going over the edge? How can we expect regulators, who are paid less and have less financial sophistication than their private sector counterparts, ever to keep up with them? These are legitimate questions, and my best answer to them is to ask in reply: Can you show me a better alternative? The events of the last couple of years could not more clearly demonstrate that the failure to more vigorously oversee the large institutions whose creditors we have ended up protecting has led to the largest bailout in U.S. history and certainly the most calamitous economic circumstances since the Great Depression. Even a halfway effective SRR over the last decade would have given us a better outcome than we have now.

I believe we can meet or do better than even that minimal standard. For a good while, the market will not buy the kinds of nontransparent securities that our financial engineers cooked up during the subprime mortgage explosion. So, our regulators have some time to catch up. And, given the soft job market, the agencies should have an easier time attracting the right talent. Of course, as times get better, the agencies will need to raise salaries to keep their best personnel. Accordingly, the SRR should have more salary freedom to compete for the best and brightest in finance in the years ahead (and it would be able to pay for all this through the fees it charges SIFIs to supervise them).

A third objection is that once today's SIFIs are identified and regulated, what are we to do about tomorrow's new unregulated institutions that will surely take their place and potentially expose us to another round of financial damage? The answer is that if such institutions arise, the SRR regime will need to be expanded. Congress has a choice: Give the SRR broad regulatory power now to identify and regulate such entities, which I know many fear would be giving the agency a blank check, or wait until the new institutions arise and pose a recognized danger and then give the SRR expanded authority. The latter option, although perhaps more politically palatable, runs the risk of repeating a variation of what we have just witnessed: the rise of new institutions, namely state-chartered mortgage brokers, and new complex mortgage securities that in combination too freely originated and securitized subprime mortgages, landing us in the mess we are now in. I can easily imagine a new set of institutions in the future doing much the same thing, and with the political power to resist any preemptive regulation. So, if I had to err on any side, it would be at the outset to give the SRR the ability to expand its net to cover new kinds of SIFIs, subject to congressional limitation or override. As a growing body of economic evidence is suggesting, the "default" scenario matters a lot. Here, the default position for the scope of the SRR should be expansive rather than limited.

Furthermore, those who worry that the market will always invent its way around, or outsmart, our regulators should remember that the regulation of finance has always been a game of cat and mouse, with the private sector mice always one step ahead of the regulatory cats. The problem exposed by this crisis is that the mice now have grown huge and can wreak havoc on a scale previously unimagined. We need to respond by getting better regulatory cats, lions if you will. The fact that this game will continue to go on is not a reason to give up entirely and let the large mice eat their way through the entire economy.

The specter of a powerful SRR no doubt will lead to another objection: In the zeal to prevent a rerun of recent events, albeit surely in a different guise, regulators will clamp down excessively on financial institutions and risk taking and thus kill off or perhaps severely maim the entrepreneurial risk taking that is the lifeblood of our economy and that is key to our future economic growth. Despite this possibility, I draw some comfort from several observations. One is that a financial system that requires less-frequent bailouts of large financial institutions will have more room for risk capital and will be less susceptible to the kinds of episodes we are now experiencing that chill risk taking. A second consideration is that any system of regulating SIFIs should not touch venture capital, angel groups, or individual sources of wealth that are sources of start-up equity capital for new firms and that clearly are not SIFIs under any reasonable definition of the term.

Finally, some may reject the notion that government should behave as though some financial institutions are so systemically important that their short-term creditors must be bailed out in a pinch. Presumably, these critics would either retain

the policy of constructive ambiguity or have the Fed and the Treasury make clear that henceforth, no more bailouts will be given. Under such a view, SIFIs do not exist, so there is no need for special regulation of them beyond what exists now.

The problem with this line of reasoning is that, as has been noted, events have passed it by. I cannot believe there is anyone in the markets or outside who would believe the government if it were now to announce such a nonbailout policy. Nor do I believe that this Fed chairman or future Fed chairmen would rule out rescues in order to save the financial system. In short, constructive ambiguity is dead.

Conclusion

There is widespread agreement on the need to strengthen our financial regulatory framework so that we are far less exposed to the kind of financial and economic crisis we are now experiencing without at the same time chilling the innovation and prudent risk taking that are essential for economic growth. It would be a major mistake to conclude that just because market discipline and sound regulation failed to prevent the current crisis, either one now should be jettisoned. Neither pillar alone can do the job. Market discipline requires rules, and these rules must be enforced.

Because the federal government and thus taxpayers are potentially always on the hook for massive financial system failures, then it is both logical and necessary that the federal government oversee the safety, in some manner, of the institutions that give rise to systemic risk.

Our current financial regulatory structure is institution specific in that regulators are charged with overseeing the safety and soundness of individual financial institutions, but none is held responsible for monitoring and assuring systemwide stability. Therefore, appropriate regulation is necessary to reduce the exposure of our financial and economic system to failures of SIFIs. An SRR should be created with special oversight responsibilities with respect to SIFIs to ensure that they have the financial resources—both capital and liquidity—to withstand reasonably large adverse economic shocks, both to the economy generally and to their important counterparties.

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