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Senate Committee on Homeland Security and Governmental Affairs

Where Were The Watchdogs? Systemic Risk and the Breakdown of Financial Governance

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Mr. Chairman, Senator Collins, and other members of this Committee: Thank you for asking me to testify today on what could not be a more important issue facing the country in the wake of the current financial and economic crisis -- how our policies and institutions can do a better job in the future of reducing systemic risk in the financial system.

Specifically, I will address and answer the questions posed in your invitation:

--Do we need a systemic risk regulator (SRR)? Yes.

--Can the monitoring and response to systemic risks be accomplished within our existing regulatory structure, specifically by the Federal Reserve, or by some new entity? Ideally, I would like to see all federal financial regulatory activities 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, I would give clear systemic risk oversight authority to the Fed, an option which is better than either creating a new agency just for systemic risk or regulating through a "college" of existing financial regulators.

--If a systemic risk regulator is to be authorized, what should be its mandate? The SRR should have oversight of all systemically important financial institutions (SIFIs), although the nature and details of this oversight should take account of the differences in types of such institutions (banks, large insurers, hedge funds, private equity funds, and financial conglomerates). The SRR (or existing financial regulators should no systemic risk regulator be designated) should also regularly analyze and report to Congress on the systemic risks confronting the financial system.

--There are legitimate challenges associated with assigning any agency the awesome responsibility for reducing systemic risk. But after surveying the alternatives, I have concluded that policy makers have no other choice. 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 we must have some arm of the federal government oversee systemic risk and do the best we can to make that oversight work.

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

In reaching these conclusions, I draw on several recent reports I have prepared over the past year with colleagues at the Brookings Institution, and which are available on the Brookings website (www.brookings.edu), and on highly useful conversations with my colleagues and grantees of the Kauffman Foundation and with other financial policy experts.[2]

I advance the views I express here with humility. Although I have spent most of my professional career studying the financial industry, the magnitude of recent events is so far beyond anything I could have imagined several years ago that I – and I believe all of us, if we are honest – cannot be fully confident that the "fixes", both in the short and long run, that we discuss and that the Congress and our regulators eventually adopt will be ideal and immutable. We should all be open to making mid-course corrections, as events continue to unfold, as we learn more, and reflect on what we have learned.

How We Got Here

Before outlining how I reach the conclusions to the specific questions you have posed, it is useful to review briefly how we got into this mess, and then to discuss why dealing with systemic risk is now so important.

As the Committee is well aware, countless words have now been written – and surely more will follow – about the causes of the crisis. They include a widespread belief by private and public actors that residential real estate prices would continue rising forever and various government policies and institutions that encouraged home ownership to an excessive degree.

Each of these factors is certainly important, but I believe we still could have avoided much, if not all, of crisis we are now enmeshed in had not the two pillars governing the safety of our financial system – market discipline and regulatory oversight – failed, and had our financial and economic system not become so leveraged.

The Failure of Market Discipline: Markets are the best institution ever invented for allocating private sector resources, but they only work when they are governed by the right rules: to ensure there is sufficient information for market participants to understand the risks and rewards of what they are buying, and to make sure they have their own money at risk, or "skin in the game." Moreover, our entire financial system was put at risk because key financial institutions were allowed to operate with so much leverage, at

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[2] See "The Great Credit Squeeze" (with Martin Baily and Douglas Elmendorf), May 2008; "The Origins of the Subprime Mortgage Crisis" (with Martin Baily and Matthew Johnson), "Fixing Finance: A Roadmap for Financial Reform" (with Martin Baily), February 2009; and "Regulating Insurance After The Crisis" (March, 2009).

a time when loan losses have soared. Consider the following ways in which market discipline was undermined or undercut at each stage of the subprime mortgage lending process, where our troubles began:

--Homebuyers with subprime credit ratings were permitted to finance their purchases with little or no money down, with no documentation of their income or assets, and to qualify for loans at low teaser rates (rather than higher reset rates). Mortgage documents and required disclosures also were and continue to be highly complex, and thus not fully understood by too many borrowers.

--Mortgage lenders could easily sell the subprime mortgages they originated to intermediaries that packaged the loans into securities, which were sold to private investors and to the two housing government-sponsored enterprises, Fannie Mae and Freddie Mac. Neither the original lenders nor many of the securitizers retained any portion of initial loan and thus had little incentives to ensure the credit-worthiness of borrowers.

--The new securities that were backed by the subprime mortgages, collateralized debt obligations (CDOs), were highly complex, and as it turned out, poorly understood by the ratings agencies that assigned portions of them AAA ratings and by investors who bought the securities on the strength of these ratings, despite the lack of transparency of the ratings process. Likewise the monoline bond insurers made similar mistakes – using a limited historical period for assessing the default experience on subprime mortgages – in providing insurance to back the CDOs (the insurers also lacked sufficient capital to support this new activity).

--The GSEs that bought CDOs were permitted to operate with much greater leverage than commercial banks, which helps explain why they became insolvent when housing price declines triggered sizeable losses on subprime and eventually even prime mortgages the GSEs held in portfolio or had securitized and guaranteed. Meanwhile, neither the shareholders nor the long-term debt holders of the GSEs effectively constrained their risk-taking, which also was encouraged by aggressive affordable housing goals.

--Commercial banks were able to effectively leverage their investments in CDOs beyond what was permitted by prevailing capital standards by having supposedly off-balance sheet "structured investment vehicles" (SIVs) buy the securities. The banks that created these SIVs are now suffering under the weight of the heavy losses from the SIVs, which the banks had to rescue when the commercial paper market refused to finance the SIV's mortgage-related investments.

--The once formerly proud independent investment banks were allowed to leverage their capital more than 30 times, all the while funded by short-term money that took flight last September, pushing these institutions to become regulated commercial banks. Notably, neither the shareholders nor the creditors of these institutions effectively constrained their risk-taking.

--While credit default swaps, or loan insurance, provide a useful hedging function for investors, it is important for the health of the financial system that the issuers of these contracts have sufficient resources to honor them. AIG clearly did not. As a result, it has so far cost the Fed $150 billion to make good on the company's CDS contracts and other obligations, all because of the fear of systemic risk – a subject I will discuss in greater detail shortly – if AIG's creditors had not been protected.

The Failure of Regulatory Oversight: It is clear not only that market discipline and the rules governing it failed to prevent the current crisis, but our bank and other financial regulators also fell short. I will not belabor the obvious, but where was the supposed improvement in the oversight of bank risk management we were promised by the new Basel capital standards? Our largest banks that are now in trouble clearly were able to take enormous risks despite the daily presence of on-site bank examiners. There also clearly was a failure to set minimum borrower standards for subprime mortgages (whether or not the Fed had the legal authority to do so, it could have asked Congress for such authority, or Congress could have given it, when the no down-payment, no doc loans that never should have been allowed became so prevalent).

Summary: 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 innovation and prudent risk-taking that are essential for economic growth. The best way to do that is to restructure and strengthen both of the pillars upon which an efficient and safe financial system must rest: *market discipline and sound regulation.*

It would be a major mistake to conclude that just because each of these pillars 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. Furthermore, if the federal government and thus taxpayers are potentially always on the hook for massive financial system failures – or systemic risk, the issue to which I turn next – 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.

At the time same, we need to recognize that regulators, like those they supervise, are human beings, capable of mistakes. That is why regulators need a helpful boost from market discipline, where it can be harnessed effectively and safely. Later I suggest how this can be done. Furthermore, regulators can and should be insulated from undue outside pressure to ease their solvency standards or to refrain from tightening them as economic situations warrant. I also suggest how this can be done, too.

Do We Need A Systemic Risk Regulator?

There is an especially urgent need for financial reform because recent events have underscored the dangers of "systemic risk" – the threat posed to the orderly functioning of the financial system (and by extension, the entire economy) from the failure of one or more financial institutions simultaneously or in close time proximity. For example, the inability of a large financial institution to pay its creditors could force them into bankruptcy or 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. It was the fear of systemic risk, after all, that motivated the various federal rescues: the forced sale of Bear Stearns to J.P. Morgan Chase, the Fed's takeover of AIG, the conservatorships established for the housing GSEs, 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 Purchase 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.

Clearly, no one ever wants something like we are going through ever to happen again. And yet, as Fed Chairman Bernanke and Treasury Secretary 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 *system-wide* stability.

Some may say that through its monetary policy activities, the Federal Reserve can and should reduce systemic risk, by restraining asset price bubbles, and that nothing more is required. Indeed, there has been a vigorous debate among monetary economists for some time over whether the Fed could do this even if it tried. Regardless of how this debate is resolved, the Fed and the country clearly would be better off if someone somewhere had more than policy tool – in addition to monetary policy -- to reduce systemic risk.

I therefore agree with those who have called for appropriate regulation to reduce the exposure of our financial and economic system to failures of what have come to be called "systemically important financial institutions" (or "SIFIs). No agency has that explicit authority and responsibility now. This must change, and I outline how shortly.

At the same time, it is important that we all be aware of the limits of what can be done and realistically expected of any systemic risk regulator. 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 so that their failure could lead to many failures or significant financial disruption. It is unrealistic, therefore, to expect that systemic risk can be eliminated.

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, this happened 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 or Intel.

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 credit default swaps in the case of AIG). As my Brookings colleague Alice Rivlin has suggested, these are the kinds of activities to which a systemic risk regulator can and should alert the Congress, other regulatory agencies and the public. More broadly, as I discuss in more detail below, the systemic risk regulator 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.

Who Should It Be?

I see four alternatives by which systemic risk regulation can be carried out.

Regulatory Consolidation/Solvency Regulator as the Systemic Risk Regulators: Ideally the 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 charter is retained, which I believe it should not be) and systemically important insurers. 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 SEC and the CFTC, the current consumer protection activities of the federal banking agencies, and also the relevant financial consumer protection responsibilities of the FTC.

The Treasury Department under Secretary Paulson outlined a similar plan, except for designating the Federal Reserve as a separate systemic risk regulator, with broad but ill-defined powers. Many have drawn the analogy between the Fed in this role as the equivalent of a “free safety” defensive back in football, with 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.

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

I realize, of course, that under any scenario, the Fed still remains on the financial hook to finance the rescue of any SIFIs, should ordinary and systemic risk oversight fail (I am assuming here that, after its current and ongoing experience with the TARP, Congress is unlikely or be very unwilling to authorize another TARP-like vehicle under Treasury's administration to deal with future crises). 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 is 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 I will discuss 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 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).[3] 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).

The Federal Reserve: I am not so naïve as to think that something like the Paulson plan (minus the free safety role for the Fed) will be implemented any time soon. Accordingly, as a second-best or fallback solution, I agree with those who say that oversight of systemic risk should be given to the Federal Reserve System. After all, the Fed is likely to pay all or most of the bill for the failures of SIFIs in the future; at a minimum, 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, and probably the most politically feasible, choice for systemic risk regulator.

In my view, if the Fed is chosen as the systemic risk regulator (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 related reporting requirements relating to these institutions.

Admittedly, assigning oversight of systemic risk, and specifically of the activities of SIFIs, to the Fed is not without significant risk, but I believe most, or all, of these challenges can be met. One such risk, as some critics of this option have pointed out and which I have just noted, is that making explicit the Fed's responsibility for preventing risk could compromise its pursuit of monetary policy. For example, the Fed could clamp down on asset bubbles, but in the process generate higher unemployment (which almost certainly have happened earlier this decade if the Fed had tried to prick the housing

[3] See Monica Langley and David Enrich, "Citigroup Chafes Under U.S. Overseers," *The Wall Street Journal*, February 25, 2009, p. A1.

bubble only through monetary policy). Conversely, in bailing out creditors of failed institutions or an in effort to provide liquidity to the market during a financial crisis, the Fed could lay the groundwork for future inflation (which many also believe to be a concern now).

But the reality is that the Fed already has *implicit it 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 to 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 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 it hands off too.

There is more substance to the critique that Congress and/or the President could put pressure on the Fed in carrying out 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 ill-advised to do so, or conversely to refrain from tightening its regulatory standards to keep a bubble from expanding.

My answer to this critique is that this risk already exists under the current regulatory structure: we saw, for example, before this crisis how a number of large banks objected to potential higher capital requirements under the Basel II regime (which I discuss and criticize for other reason at the end of this testimony). I don't see how vesting more regulatory authority in the Fed makes this risk any worse. The only concern is whether it spills over into compromising the Fed's monetary policy functions, a critique I have just answered. Furthermore, the Fed or any systemic risk regulator can insulate itself from political pressure by introducing a more automatic system of counter-cyclical capital standards than now exists, as I discuss 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, about agency given systemic risk responsibility is likely to be risk averse. This objection goes more to regulation per se, not just by the Fed, and it is one I also address shortly below.

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 only has supervisory expertise for banks, but not for other financial institutions that might be deemed to be SIFIs, such as large insurers, hedge 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 non-banks not now regulated at the federal level.

In any event, I believe 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) also should be able to draw supervisory personnel for large banks in particular from the Comptroller of the Currency, which is already supervising 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 the 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 to the annual appropriations process the purely regulatory (and related research) functions of the Fed, while allowing the Fed to retain its budgetary freedom with respect to its monetary policy functions to operate as they are now. I suggest that if this done that the Fed be allowed to fund its regulatory (and related research) activities through supervisory assessments on the SIFIs subject to its jurisdiction.

A New Agency: A third option for the systemic risk regulator is to create an entirely new 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.

My main 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 similar skills to those that already exist?

A College of Existing Regulators: A fourth option is to vest systemic risk regulatory functions in a 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 and private equity funds). This option may be the most politically feasible – since 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 I doubt that it would eliminate them.

What Should The Systemic Risk Regulator Do?

It is one thing to identify the systemic risk regulatory (SRR), it is quite another to define precisely what it is supposed to do. Here I will freely admit that much more hard thinking needs to be done about the scope of the SRR's duties, and for that reason, I would suggest that the Congress draft any authorizing legislation in broad terms and permit the designated agency to fill in most of the details by rulemaking or less formal guidance, subject to Congressional oversight. I nonetheless will preview some of the key issues that Congress and/or the agency must be resolve and how I tentatively would advise doing so.

First, the SRR's mission must be clear. In my view, that mission should be to reduce significantly the sources of systemic risk or to minimize such risk to acceptable levels. For reasons already given, the goal should not be to *eliminate* all systemic risk, since it is unrealistic to expect that result, and an effort to do so could severely clamp down on socially useful activity.

Second, there must be criteria for identifying SIFIs. The Group of Thirty suggested that the size, leverage and degree of interconnection with the rest of the financial system should be the deciding factors and I agree. The test should be whether the combination of these factors means that the failure of the institution poses a significant risk to the stability of the financial system. I anticipate that 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 insurers, and depending on their leverage and counter-party exposures, hedge and private equity funds. It is also conceivable one or more large finance companies could meet the test. And presumably the major stock exchanges and clearinghouses, as well as the contemplated clearinghouse(s) for credit default swaps, would qualify.

I am aware of the predictable counter-argument that no hedge fund or private equity fund should be designated and regulated as a SIFI, on the ground that so far what problems have surfaced among these funds have been resolved in an orderly fashion without threatening the financial system. True enough. But our regulators also don't know enough what's out there because there is no comprehensive reporting by these funds, or at least those above a certain size. I envision the SRR working 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 blown up. The problem now is that we really don't know if there is another LTCM in waiting, and this simply must change.

As for the regulation of insurance, I have just completed an analysis of this subject that is being posted on the Brookings website today. It is quite likely 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*. I believe that other insurers (excluding health insurers) should be given the option to be regulated at the federal level as well (though 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 Comptroller of the Currency for banks).

It is critical, however, that federal law 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 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 non-financial products.

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 initially highly leveraged should be able to have its SIFI designation removed if the fund substantially reduces its size, leverage and counter-party 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 (both 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 counter-parties and the size and nature of the exposure to specific counter-parties). 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 than for systemically important insurers, hedge and private equity funds, and clearinghouses and exchanges.

Broadly speaking, however, because of the systemic risks they 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 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 shouldn't.

Fifth, the SRR will need to supervise the institutions under its watch, not only to assure compliance with applicable capital and liquidity standards, but as suggested by the Group of Thirty, also to assure that the institutions are adhering to best practices for risk management, including daily, if not hourly, exposures to their largest counterparties.[4] As I noted earlier, the SRR should be able to attract supervisors from the OCC for large bank supervision, and from a very soft job market for finance professionals generally. Supervisory costs should be funded from assessments on the SIFIs. Indeed, there is no reason why the entire budget of the SRR could not be funded in this manner.

Sixth, as we have all witnessed, regulators are human beings, capable of mistakes. It is also unrealistic to expect them to clairvoyant, regardless of how much beefed up training and new blood they get in the wake 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 can't 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 get all of the upside, but have limited downside risk.

One ideal source of market discipline is uninsured, unsecured long-term debt, or subordinated debt, issued by financial institutions. 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 than insured depositors). Under current bank capital rules, however, banks are allowed but not required to issue such debt. As and I and a

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[4] In 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.

number of academic scholars have been urging for years, large banks should henceforth be required to back a certain minimum portion (say 2%) of their assets with subordinated debt. The interest rates on this debt would provide important early market-based signals to regulators about the possible deterioration in the bank's health. Indeed, the SRR should consider extending this subordinated debt requirement to the large insurers identified as SIFIs. One additional idea to consider is whether to make the debt convertible into equity should the SIFI's financial position fall below a certain threshold, as Harvard Business School professor (and now currently National Economic Council staff member) Jeremy Stein has suggested. And still another idea is for the SRR to look to the prices of credit default swaps – yes those maligned financial instruments – as a source of market-based information (CDSs are nothing more than insurance contracts on the default of an institution's debt, and thus the prices at which they trade can be powerful sources of information about what market participants, with their money on the line, believe about the financial prospects of the institution).

In the wake of the recent bailouts, one legitimate question is whether there is any role left for market discipline in the financial system, at least with respect to SIFIs. I believe there is, and must be, since we cannot put all of the weight of monitoring and enforcing the health of our financial system on regulators. The key is to harness the discipline of providers of capital to SIFIs that the market credibly believes will not be bailed out in a future crisis. Subordinated debt holders meet this test. CDS counter-parties also can meet this test if appropriate regulation is brought to this market.

Which brings me to point number seven: the CDS market, and indeed the entire over-the-counter derivatives market, poses systemic risks, as the failure of AIG so clearly demonstrates (and who knows what other risks in these markets are lurking?). The establishment of central clearinghouses, which has been active discussion, should mitigate these risks, but only if any derivatives clearinghouse itself is also well capitalized and has sufficient liquidity. This is the reason that such a clearinghouse presumptively should be viewed as a SIFI and regulated as such, although the SRR may want to share its work here with other agencies with expertise in this area, notably the current SEC and CFTC (How this would be accomplished is an important detail that must be worked out).

But 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 non-payment as the parties themselves). I do not have an easy answer to this problem, except to suggest that the SRR, in conjunction with the SEC and CFTC, consider ways to set minimum capital and 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, and I cannot stress heavily enough how important this is, all SIFIs under the watch of the SRR should be required to file an "early closure and loss sharing plan" – a pre-packaged 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" system for banks since the passage of FDICIA in 1991. As this crisis has illustrated, PCA hasn't 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 occurred in the 1980s when regulators exercised "regulatory forbearance" when confronted with the threatened failure of the nation's largest banks due to 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 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, which has expertise in these matters, or by creating a new asset disposition agency of which the current FDIC would a core part.

Answers to Anticipated Objections

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

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" which reined until this crisis: 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 is dead. The only large troubled institution whose creditors took a hit during this period was Lehman Brothers, and I believe most policy makers, in private if not in public, will admit that was a mistake (although they may also say that no federal entity had the legal authority to rescue Lehman's creditors).

In short, I believe 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, we might well 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 I outlined earlier, is that the systemic risk regulator should consider imposing an extra dose of stable market discipline on SIFIs that is not required for smaller institutions.

A related, second objection to regulating SIFIs is that it won't work: namely, why would the SRR will do any better overseeing SIFIs than our current regulators of banks who clearly failed to stop our largest banks from literally 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 American history, and certainly the most calamitous economic circumstances since the Depression. Even a half-way 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 non-transparent securities that our financial engineers cooked up during the subprime mortgage explosion. So our regulators have some time to catch up. And, as I said, 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 we are to do about tomorrow's new unregulated institutions that surely will 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, while perhaps more politically palatable, runs the risk of repeating a variation 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 to give the SRR at the outset 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 more expansive than limited.

Furthermore, I would remind those who worry that the market will always invent its way around or outsmart our regulators 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: that 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. At the Kauffman Foundation, whose mission is to promote understanding of entrepreneurship, we worry a lot about such an outcome. I nevertheless draw some comfort from several things. One is that a financial system that entails 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 which chill risk-taking. A second consideration is that any system of regulating SIFIs would not touch venture capital, angel groups, or individual sources of wealth which are sources of start-up equity capital for new firms, but which clearly are not SIFIs under any reasonable definition of the term.

Finally, some may reject the notion that government should assume that some financial institutions are so systemically important that their short-term creditors must be bailed out in a pinch. So 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. Under such a view, without SIFIs, there would be no need for special regulation of them, beyond what exists now.

The problem with this line of reasoning is, as I have noted, that events have passed it by. I can’t believe there is anyone in the markets or otherwise who would believe the government if it were now to announce such a non-bailout 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, as I have said, constructive ambiguity is dead.

Other Constructive Steps To Contain 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, policy makers should use other regulatory or policy "baskets" to supplement and reinforce the measures undertaken by the risk regulator.

For example, bank regulators, including the systemic risk regulator, should be required to issue regular (annually or perhaps more frequently, 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, since rapid growth tends to be associated (but not always) with future problems. Economists recently have been working hard on identifying asset bubbles, and while the results are still not perfect, they seem to be improving. In my view, bubble forecasting is not much more prone to error than hurricane forecasting. We engage in the latter, we ought to start taking warnings of the former more seriously.

Establishing early warning systems does not necessarily mean that the Federal Reserve 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 changing the discount rate.

A legitimate objection to an early warning-based regulatory system is that political pressures may be so great that policy makers will ignore them. In particular, a case can be made that had warnings about the housing market becoming overheated 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, and everyone else who was making money off subprime originations and securitizations – could well have stopped any counter-measures dead in their tracks.

This recounting of history might or might not be right. But I don't think the answer matters. 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 policy making, the vivid memories of these events and their consequences will give a future systemic risk regulator much more authority when it warns the Congress and the public of future asset bubbles or sources of undue systemic risk.

Second, 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 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 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 below), 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. 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 FDA-like safety and efficacy screening before permitting them to be used in the marketplace. 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. Since regulators will be blamed for products that are later viewed to be unsound but get little or no credit for socially productive innovations, the regulatory impulse under a pre-screening 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 squelched 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 pre-screening 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. The same is even true for the Internet, for one easily could have imagined at the outset 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, today would seem unthinkable, but in a pre-screening environment who knows 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 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 non-arbitrary 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 a SIFI and thus in need of extra scrutiny, or just 5 of them, but twice the size? Frankly, I don't know, and I know of no way of being sure which scenario poses the most systemic risk.

In the end, we now live in a complicated world where we inevitably will 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 stable market discipline in an effort to reduce the likelihood that any one of them could fail, and to limit the concentrations of counter-party risk of these institutions. I see no better alternative.

Role for Global Cooperation

The submprime mortgage crisis has triggered widespread economic damage in the rest of the world, demonstrating if there was any doubt about this before, that 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 in November. Now, the Obama Administration is preparing for the follow-up meeting in London on April 2.

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.

I have deep reservations about both ideas. 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, for 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 over 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 higher) leverage requirement for our largest financial institutions, coupled with a subordinated debt requirement, which would have supplemented a simple regulatory standard with stable market discipline.

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 is 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.

Having said all of this, I still believe that the United States and other countries have much to learn from each other in the way they regulate and supervise financial institutions and markets. Thus, I am all for 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, I think the guiding principle should be one coined recently by the Conference Board of Canada in issuing its recommendations for financial reform: "Think Globally, Act Locally."[5] 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, which 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 don't need or want another decade-long Basel like process to reach consensus on reform. We can and should do the fixing on our own.

[5] The Conference Board of Canada, *International Financial Policy Reform and Options for Canada: Think Globally, Act Locally*, February 2009.