Initiative on
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**Testimony of**

**Martin Neil Baily and Robert E. Litan**

Delivered on May 6, 2009

to the Senate Committee on Banking, Housing and Urban Affairs

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The Initiative on Business and Public Policy provides analytical research and constructive recommendations on public policy issues affecting the business sector in the United States and around the world.

## ABOUT THE AUTHORS

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This testimony draws on several of the authors' recent essays on the financial crisis on the Brookings Website, www.brookings.edu, the work of Douglas Elliott of Brookings and the papers of the Squam Lake Working Group on Financial Regulation http://squamlakeworkinggroup.ORG/

*Thank you Mr. Chairman and members of the Committee for asking us to discuss with you the appropriate policy response to what has come to be widely known as the "too big to fail" (TBTF) problem. We will first outline some threshold thoughts on this question and then answer the questions that you posed in requesting this testimony.*

# The Key Points

## Too Big to Fail and the Current Financial Crisis

- The US economy has been in free fall. Hopefully the pace of decline is now easing, but the *transition to sustained growth will not be possible without a restoration of the financial sector to health*.

- The largest US financial institutions hold most of the financial assets and liabilities of the sector as a whole and, despite encouraging signs, many of them remain very fragile.

- Many banks in the UK, Ireland, Switzerland, Austria, Germany, Spain and Greece are troubled and there is no European counterpart to the US Treasury to stand behind them. *The global financial sector is in a very precarious state*.

- In this situation policymakers must deal with "too big to fail" institutions because we cannot afford to see the disorderly failure of another major financial institution, which would exacerbate systemic risk and threaten economic recovery.

- The stress tests are being completed and some banks will be told to raise or take additional capital. There is a lot more to be done after this, however, as large volumes of troubled or toxic assets remain on the books and more such assets are being created as the recession continues.

- It is possible that one or two of the very large banks will become irretrievably insolvent and must be taken over by the authorities and, if so, they will have to deal with that problem even though the cost to taxpayers will be high. But pre-emptive nationalization of the large banks is a terrible idea on policy grounds and is clouded by thicket of legal problems.[1]

- Getting the US financial sector up and running again is essential, but will be very expensive and is deeply unpopular. If Americans want a growing economy next year with an improving labor market, Congress will have to bite the bullet and provide more Treasury TARP funds, maybe on a large scale. The costs to taxpayers and the country will be lower than nationalizing the banks.

- Congress recently removed from the President's budget the funds to expand the TARP, a move that can only deepen the recession and delay the recovery.[2]

1. See the papers by Doug Elliott on the Brookings website.
2. If it is any consolation, between 72 and 80 percent of federal income taxes are paid by the top 10 percent of taxpayers. Average working families will not be paying much for the bailout.

# Too Big to Fail:
## Answering the Four Key Questions (Plus One More)

- **Should regulation prevent financial institutions from becoming too big to fail?** We need very large financial institutions given the scale of the global capital markets and, of necessity, some of these may be "too big to fail" (TBTF) because of systemic risks. For US institutions to operate in global capital markets, they will need to be large. Congress should not punish or prevent organic growth that may result in an institution having TBTF status.

- At the same time, however, TBTF institutions can be regulated in a way that at least partially offsets the risks they pose to the rest of the financial system by virtue of their potential TBTF status. Capital standards for large banks should be raised progressively as they increase in size, for example. In addition, financial regulators should have the ability to prevent a financial merger on the grounds that it would unduly increase systemic risk (this judgment would be separate from the traditional competition analysis that is conducted by the Department of Justice's Antitrust Division).

- **Should Existing Institutions be Broken Up?** Organic growth should not be discouraged since it is a vital part of improving efficiency. If, however, the FDIC (or another resolution authority) assumes control of a weakened TBTF financial institution and later returns it to the private sector, the agency should operate under a presumption that it break the institution into pieces that are not considered TBTF. And it should also avoid selling any one of the pieces to an acquirer that will create a new TBTF institution. The presumption could be overcome, however, if the agency determines that the costs of breakup would be large or the immediate need to avoid systemic consequences requires an immediate sale to another large institution.

- **What Requirements Should be Imposed on Too Big to Fail Institutions?** TBTF or systemically important financial institutions (SIFIs) can and should be specially regulated, ideally by a single systemic risk regulator. This is a challenging task, as we discuss further below, but we believe it is both one that can be met and is clearly necessary in light of recent events.

- Too big to fail institutions have an advantage in that their cost of capital is lower than that of small institutions. At a recent Brookings meeting, Alan Greenspan estimated informally that TBTF banks can borrow at lower cost than other banks, a cost advantage of 50 basis points. This means that some degree of additional regulatory costs (in the form of higher capital requirements, for example) can be imposed on large financial institutions without rendering them uncompetitive.[3]

- **Improved Resolution Procedures for Systemically Important Banks.** This is an important issue that should be addressed soon. When large financial firms become distressed, it is difficult to restructure them as ongoing institutions and governments end up spending large amounts to support the financial sector, just as

3. However it is important that international negotiation be used to keep a level playing field globally.

is happening now. The Squam Lake Working group has proposed one solution to this problem: that systemically important banks (and other financial institutions) be required to issue a long-term debt instrument that converts to equity under specific conditions. Institutions would issue these bonds before a crisis and, if triggered, the automatic conversion of debt into equity would transform an undercapitalized or insolvent institution, at least in principle, into a well capitalized one at no cost to taxpayers.[4]

- Where the losses are so severe that they deplete even the newly converted capital, there should be a bank-like process for orderly resolving the institution by placing it in receivership. Treasury Secretary Geithner has outlined a process for doing this, which we generally support. There are other important resolution-related issues that must be addressed and we discuss them below.

- **The Origin of the Crisis and the Structure of the Solution.** The financial crisis was the result of market failure and regulatory failure. Market failure occurred because wealth-holders in many cases failed to take the most rudimentary precautions to protect their own interests. Compensation structures were established in companies that rewarded excessive risk taking. Banks bought mortgages knowing that lending standards had become lax.[5]

- At the same time, there were thousands of regulators who were supposed to be watching the store, literally rooms full of regulators policing the large institutions. Warnings were given to regulators of impending crisis but they chose to ignore them, believing instead that the market could regulate itself.

- In the future we must seek a system that takes advantage of market incentives and makes use of well-paid highly-qualified regulators. Creating such a system will take time and commitment, but it is clearly necessary.

4. http://squamlakeworkinggroup.org/
5. See "The Origins of the Financial Crisis" and "Fixing Finance" available on the Brookings website.

# Expanding on the Issues

As the Committee is well aware, TBTF actually is somewhat of a misnomer, since no company is actually too big to fail. More accurately, as we have seen in the various bailouts during this crisis, even when the government comes to the rescue, it does not prevent shareholders from being wiped out or having the value of their shares significantly diminished. The beneficiaries of the rescues instead are typically short-term creditors, and in some cases, longer term creditors. The rescues are mounted to prevent systemic risk, which can arise in two ways: if creditors at one institution suffer loss or have to wait for their money, their losses will cascade throughout the financial system and threaten the failure of other firms and/or creditors in similar institutions will "run" and thereby trigger a wider crisis.

In what follows we refer to financial institutions whose failure poses systemic risk as "systemically important financial institutions" or "SIFIs" for short. Clearly, large banks can be SIFIs because they are funded largely by deposits that can be withdrawn on demand. But, as has been painfully learned during this crisis, policy makers have feared that certain non-banks — the formerly independent investment banks and AIG — can be SIFIs because they, too, are or were funded largely by short-term creditors.

By similar reasoning, other financial institutions — if sufficiently large, leveraged, or interconnected with the rest of the financial system — also can be systemically important, especially during a time of general economic stress:

- Our entire financial system, for example, depends on the ability of the major stock and futures exchanges to price financial instruments, and on the major financial clearinghouses to pay those who are owed funds at the end of each day.

- The harrowing experience with the near failure of LTCM in 1998 demonstrates that large, leveraged hedge funds can expose the financial system to real dangers if counter-parties are not paid on a timely basis.

- Large troubled life insurers can also generate systemic risks if policyholders run to cash out their life insurance policies, or if the millions of retirees who rely on annuities suddenly learn that their contracts may not be honored sharply curtail their spending as a result.

- It is an open question whether the large monoline bond insurers, which have been hit hard by losses on subprime securities they have guaranteed, are systemically important. On the one hand, these losses for a time appeared to threaten the ability of these insurers to continue underwriting municipal bond issues (their core business), which could have had major negative ripple effects throughout the economy. On the other hand, as the recent entry of Berkshire Hathaway into this business has demonstrated, other entrants eventually can take up the slack in the market if one or more of the existing bond insurers were to fail. Nonetheless, because the entry process takes time, it is possible that one or more of the existing bond insurers could be deemed too big (or important) to fail in a time of broad economic distress, such as the present time.

- One or more large property-casualty insurers could be deemed to be systemically important if they each were hit suddenly by a massive volume of claims — for example, following one or a series of catastrophic hurricanes — which, among other things, could trigger a large amount of securities sales in a short period of time. A large volume of CAT claims could also imperil the solvency of one or more large insurers (and/or possibly state backup insurance pools, like the one in Florida) and leave millions of policy holders without coverage, an outcome that federal policy makers may deem unacceptable.

One question we are certain you have been asked by your constituents and the media is why the auto companies have been treated differently, at least so far, from large financial firms. To be sure, in each case, it now appears that the federal government will end up owning some or, in the case of GM, most of the equity. But the creditors of the auto companies are not being protected, unlike those of the large financial firms that have been labeled "too big to fail." Why the difference?

There is an economic answer to this question which admittedly may be politically less than persuasive to some. Essentially by definition, systemically important financial institutions are funded largely if not primarily by short-term borrowings — deposits, repurchase agreements, commercial paper — which if not fully repaid when due or "rolled over" will cause not only the firm to fail, but threaten the failure of many other firms throughout the economy in one or both of the ways we have already described. In contrast, non-financial firms are typically not funded primarily by short-term borrowing, but instead by a combination of longer-term debt and equity. To be sure, their failure can lead to the failure of other firms, such as suppliers, and also trigger a wider loss of confidence among consumers, but most economists believe the damage to the entire economy is not likely to be as substantial as it would be if depositors at one or more of the largest banks or the short-term counter-parties of a large hedge fund or insurance company are not paid on time.

We are nonetheless confident that the various financial firm bailouts do not please you or your constituents, which presumably is why you've convened this hearing. We are all highly uncomfortable with having the government bail out some or all possibly all of the creditors of large systemically important financial institutions. In particular, there are three reasons for this discomfort.

First, if creditors of some institutions know that they will be fully protected regardless of how the managers of those firms act, the creditors will have no incentive to monitor the firms' risks and to discourage the taking of excessive risk. Economists call this the "moral hazard" effect, and over time, if left unchecked it will lead to too much risk-taking by too many institutions, putting the economy at risk of future bubbles and the potentially huge costs when they pop.

Second, bailouts of creditors of failed firms are fundamentally inconsistent with capitalism, which rewards and thus provides incentives for success, but punishes failure. Socializing the risks of failure is not how the game is played, and not only introduces too much risk-taking into the economy, but is also rightfully perceived as unfair by those firms whose creditors who are not given this protection.

Third, we are learning that bailouts undermine the public's trust in government, which can make it harder for elected officials to do the public's business. Thus, for example, the unpopularity of the bailouts thus far may slow down the much needed cleanup of the financial system, which will slow the recovery. Likewise, if the public gets the impression that much of what Washington does is bail out mistakes, voters may be much more reluctant to support and fund worthy, cost-effective endeavors by government to ensure more universal health care, fix education, and address climate change, among other important objectives.

For all these reasons, policy makers must take reasonable steps now to prevent institutions from becoming TBTF, or if that is the outcome of market forces, then to prevent these institutions from taking excessive risks that expose taxpayers to paying for their mistakes. These are essentially the options on which you have requested comment, and to which we now turn.

## Desirability and Feasibility of Preventing Institutions from Becoming TBTF

Clearly, we all want a financial and economic system in which those who take risks — whether they are large or small — to bear the full consequences of their actions if they are wrong, just as they are entitled to all of the rewards if they are successful. The policy challenge is how best to ensure this result.

One way to prevent non-banking financial institutions from becoming TBTF is to impose limits on their size, measured by assets, indebtedness, counter-party risk exposures, or some combination of these factors. While, as we discuss further below, these measures are useful for establishing whether an institution should be presumptively treated as systemically important and thus subject to heightened regulatory scrutiny, it would be quite extraordinary and unprecedented to actually prevent such institutions from growing above a certain size limit. Putting aside the arbitrary nature of any limit, imposing one would establish perverse, and we believe, undesirable incentives that would undermine economy-wide growth.

For one thing, any size limit would punish success, and thus discourage innovation. There are well-managed large financial institutions, such as JP Morgan, TIAA-CREF, Vanguard and Fidelity, to name a few. If the managers and shareholders of each of the institutions had been told in advance that beyond some limit the company could not grow, each of them would have stopped innovating and serving customers' needs well before reaching the limit. Employee morale also clearly would suffer, especially for those employees paid in stock or options, whose value would quite growing and indeed fall as companies reached their limit. These outcomes not only would ill serve consumers, but would discourage future entrepreneurs from reaching for the heights.

Second, even though this crisis has demonstrated that the failure of large financial institutions can impose substantial costs on the rest of the financial system economists do not know with any degree of precision at what size these externalities outweigh the benefits of diversification and economies of scale that large institutions may achieve (and further, how these size levels likely vary by activity or industry). Accordingly, by essentially requiring large, growing companies to split themselves up beyond some point, policy makers would be arbitrarily sacrificing these economies.

Nonetheless, there are steps short of an absolute size limitation that policy makers should consider to contain future TBTF problems.

First, Congress could require regulators to establish a rebuttable presumption against financial institution mergers that result in a new institution above a certain size. Such a standard would provide stronger incentives, if not a requirement, that companies earn their growth organically. For reasons just indicated, we are not certain that economists yet have sufficient evidence to know with any precision at what size level such a presumption should be set, but the harms from limiting mergers beyond a size threshold would be less than imposing an absolute limit on internal growth.

If Congress takes this approach, we recommend that it continue to require dual approval for mergers by both the antitrust authorities and the appropriate financial regulator (either the relevant supervisor for the firm, or a new systemic risk regulator, our preference). The reason for this is that while the antitrust enforcement agencies (the Department of Justice and the Federal Trade Commission) have well-defined and supportable numerical standards for assessing whether a merger in any industry poses an unacceptable risk of harming *competition*, they have no special expertise in making the *financial* decision with respect to the size at which an institution poses an undue systemic financial risk. This latter decision is more appropriate for the relevant financial regulator to make.

A second suggestion about which we have even greater confidence is for Congress to require the appropriate financial regulator(s) to subject systemically important financial institutions to progressively tougher regulatory standards and scrutiny than their smaller counterparts. We provide greater detail below on how this might be done. The basic rationale for this is quite straightforward. Larger financial institutions, if they fail or encounter financial trouble, imperil the entire financial system. This externality must be offset somehow, and a different regulatory regime — one that entails progressively tougher capital and liquidity standards in particular — is the best way we know how to accomplish this.

Third, even for large systemically important financial institutions, it is possible to retain at least some market discipline and thus to limit the need for federal authorities to protect at least some creditors, which is what makes a large and/or highly interconnected financial firm "too big to fail". The way to do this is to require as many SIFIs as possible (large hedge funds may be excepted because their limited partnership interests and/or debt are not publicly traded) to fund a certain minimum percentage of their assets by convertible unsecured long-term debt. Because the debt would be long-term it would not be susceptible to runs (as is true of short-term debt, which in a crisis may not be rolled over). Furthermore, if the debt must be converted to equity upon some pre-defined event — such as a government takeover of the institution (discussed below) or if the capital-to-asset ratio falls below some required minimum level — this would automatically provide an additional cushion of equity when it is most needed, while effectively requiring the debt holders to take a loss, which is essential for market discipline. The details of this arrangement should be left to the appropriate regulators (or the systemic risk regulator), but the development of the concept should be mandated by the Congress.

## Should SIFIs Be Broken Up?

Even if financial institutions are not subjected to a size limit, a number of experts have urged that regulators begin seizing weak banks (and perhaps weak non-bank SIFIs), cleaning them up (by separating them into "good" and "bad" institutions), and then breaking up the pieces when returning them to private hands (through sale to a single acquirer or public offering).

We address below the merits of adopting a bank-like resolution process for non-bank SIFIs. For the numerous practical reasons outlined by our Brookings colleague Doug Elliott, we also urge caution in having regulators seize full control of financial institutions unless it is clear that their capital shortfalls are significant and cannot be remedied through privately raised funds.[6]

However, where regulators lawfully assume control of a troubled important financial institution (bank or non-bank), we are sympathetic with having the FDIC (or any other agency charged with resolution) required to make reasonable efforts to break up the institution when returning it to private hands (through sale or public offering) if it is already deemed to be systemically important or to avoid selling it to another institution when the result will be to *create* a new systemically important financial institution, provided the resolution authority also has an "out" if there is no other reasonable alternative.

The rationale for the proposed presumption should be clear: given the costs that taxpayers are already bearing for the failure of certain systemically important institutions in this crisis, why, if it is not necessary, allow more TBTF problems to be created or aggravated by future financial mergers? Congress should recognize, however, that in limiting the sale of troubled financial institutions, it may make some resolutions more expensive than they otherwise be, at least in the short run. Subject to the qualification we next set out, this is an acceptable outcome, in our view, since measures that avoid making the TBTF problem worse have long-run benefits to taxpayers and to society.

There must be escape clause, however. The Treasury, the Federal Reserve Board and the appropriate regulator may believe that the functions of the failing (or failed) institution are so intertwined or inseparable, and/or that its purchase by a single entity in a very short period of time — as in the case of Bank of America's acquisition of Merrill Lynch or JP Morgan's purchase of Bear Stearns – is so essential to the health of the overall financial system that disposition of the institution in pieces is impractical or substantially more costly (as measured by the amount of government financing required) than other alternatives. Such a "systemic risk exception" should be very narrowly drawn, and conceivably require the approval of all of the regulatory entities just mentioned.

We should note, however, that if Congress also creates a bank-like resolution process for non-bank SIFIs, the systemic risk situation we describe truly should be exceedingly rare. Once regulators have the authority to put a non-bank SIFI into receivership and to guarantee against loss such creditors as

6. Elliot's discussions of the difficulties of even temporary nationalizations also appear on the Brookings website.

are necessary to preserve overall financial stability, then regulators should not be forced by the pressure of time to sell the entity in one piece. Of course, it still may be the case that the activities of the institution are sufficiently inseparable that it would be impractical or highly costly for the resolving authority to break up the firm in the disposition process. If that is the case, then the regulators should have the ability to sell off the institution in one piece.

One other practical issue must also be addressed. There must be some way for the resolving authority to identify the circumstances under which the resolution of a troubled institution would create or aggravate the TBTF problem. One way to do this is to require an appropriate regulator (a topic we discuss shortly) to designate in advance certain financial institutions as being systemically important (and thus subject to a tougher regulatory scrutiny). Alternatively, the resolution authority could make this determination at the time, in consultation with the Federal Reserve and/or the Treasury, or with the designated systemic risk regulator. In either case, the resolution authority must still be able to determine if a particular sale might *create* a new systemically important institution.

## Regulating SIFIs

If SIFIs are not to be broken up (outside of temporary government takeover) or subjected to an absolute size constraint, then it is clear that they must be subject to more exacting regulatory scrutiny than other institutions. Otherwise, smaller financial institutions will be disadvantaged and the entire financial system and economy will be put at undue risk. That is perhaps one of the clearest lessons from this current crisis.

We recognize, however, that establishing an appropriate regulatory regime for SIFIs is a very challenging assignment, and entails many difficult decisions. We review some of them now. Our overall advice is that because of the complexity of the task, as well as the constantly changing financial environment in which these institutions compete, that Congress avoid writing the details of the new regime into law. Instead, it would be far better, in our view, for Congress to establish the broad outlines of the new system, and then delegate the details to the appropriate regulator(s).

**First, the regulatory objective must be clear:** We suggest that the primary purpose of any new regulatory regime for systemically important financial institutions should be to significantly reduce the sources of systemic risk or to minimize such risk to acceptable levels. 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 dampen constructive innovation and socially useful activity.

**Second, if SIFIs are to be specially regulated, there must be criteria for identifying them.** 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 we agree.[7] We also believe that whether an institution is deemed systemically important may depend on both general economic circumstances, as well as the conditions in a specific sector at the time. Some large institutions may not pose systemic risks if they fail if the economy is generally healthy or is experiencing only a modest downturn; but the same institution, threatened with failure, could be deemed systemically important under a different set of general economic or industry-specific conditions. This is just one reason why we counsel against the use of hard and fast numerical standards to determine whether an institution is systemically important. Another reason is that the use of numerical criteria alone could be easily gamed (institutions would do their best either to stay just under or over any threshold, whichever outcome it believes to be to its advantage). Accordingly, the regulator(s) should have some discretion in using these numerical standards, taking into account the general condition of the economy and/or the specific sector in which the institution competes. The ultimate 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.

As we discussed at the outset of our testimony, application of this test should result in some banks, insurers, clearinghouses and/or exchanges, and hedge funds as being systemically important (certain formerly independent investment banks that have since converted to bank holding companies or that are no longer operating as independent institutions also would have qualified, and conceivably could do

7. Group of Thirty. "Financial Reform: A Framework for Financial Stability" (Washington D.C., Jan 2009)

so again). We doubt whether venture capital firms would qualify.

Clearly, to the extent possible, the list of SIFIs should be compiled in advance, since otherwise there would no method of specially regulating them (some institutions that may be deemed systemically important only in the context of particular economy-wide or sector-specific conditions cannot be identified in advance, or may be so identified only when such conditions are present). A natural question then arises: should this list be made public? As a practical matter, we do not think one could avoid making it public. At a minimum, it would be apparent from the capital and liquidity positions reported in the firms' financial statements that the relevant institutions had been deemed by regulators to be systemically important. Meanwhile, the presence of more intensive regulatory oversight, coupled with a mandatory long-term debt requirement, both not applicable to smaller institutions, would counter the concern that public announcement of the firms on the list would somehow weaken market discipline or give the institutions access to lower cost funds than they might otherwise have.

Institutions designated as systemically important 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.

As this discussion implies, the process of designating or identifying institutions as systemically important must be a dynamic one, and will depend on the evolution of the financial service industry, the firms within in, and the future course of the economy. It is to be expected that some firms will be added to the list, while others are dropped, over time. In particular, regulators must be vigilant to include new variations of the ostensibly off-balance sheet structured investment vehicles (SIVs), which technically may have complied with existing accounting rules regarding consolidation, but which functionally always were the creations and obligations of their bank sponsors. Regulators should take a functional approach toward such entities in the future for purposes of determining whether an institution is systemically important. If the firm's affiliates or partners in any way could require rescue by other institutions, then that prospect should be considered when assessing the size, leverage, and financial interconnection of the firm.

**Third, the nature of regulation should depend on the activity of the institutions.** For financial intermediaries, such as banks and insurance companies, and clearinghouses or exchanges, which are considered to be systemically important, the main regulatory tools should be higher capital, liquidity and risk management standards than those that apply to smaller institutions. It is to be expected that these standards will differ by type of institution. Furthermore, the appropriate regulator(s) should consider making these standards *progressively* higher as the size of the SIFI increases, to reflect the likely increasing bailout risk that SIFIs pose to the rest of the financial system as they grow.

Several more details about these standards also deserve mention. Capital standards, for SIFIs and other financial institutions, should be made less pro-cyclical, or even counter-cyclical. Another lesson from this crisis is that financial regulation should not unduly constrain lending in bad times and fail to curb it in booms. The way to learn this lesson, however, is not to leave too much discretion to regulators in raising or lowering capital (and possibly liquidity) standards in response to changes in economic conditions. If regulators have too much discretion about when to adjust capital standards, they may succumb to heavy pressures to relax them in bad times, and not to raise them when times are good. To avoid this problem, Congress should require the regulators to set in advance a clear set of standards for good times and bad (or, at a minimum, to specify a range for those standards, as the Group of Thirty has suggested).

With respect to their oversight of an institution's risk management procedures, regulators must be more aggressive in the future in testing the reasonableness of the assumptions that are built into the risk models used by complex financial institutions. In addition, regulators should consider the structure of the executive compensation systems of SIFIs under their watch, paying particular attention to the degree to which compensation is tied to long-run, rather than short-run, performance of the institution. In the normal course of their supervisory activities, regulators should use their powers of persuasion, but should also have a "club in the closet" — the authority to issue cease and desist orders — if necessary.

For private investment vehicles, primarily or possibly only hedge funds, the appropriate regulatory regime is likely to differ from publicly traded financial intermediaries. Here, we would expect that the appropriate regulator, at a minimum, would have the authority to collect on a regular basis information about the size of the fund, its leverage, its exposure to specific counter-parties, and its trading strategies so that the supervisor can at least be alert to potential systemic risks from the simultaneous actions of many funds. We would expect that most of this information, with the exception of fund size and perhaps its leverage, would be confidential, to preserve the trade secrets of the funds. We would not expect the regulator to have authority to dictate counter-party exposures or trading strategies. However, where the authorities see that particular funds are excessively leveraged, or when considered in the aggregate their trading strategies may create excessive risks, the appropriate regulator should have the obligation to transmit that information to the banking regulators or the systemic risk regulator, which in turn should have the ability to constrain lending to particular funds or a set of funds.

**Fourth, ideally a single regulator should oversee and actively supervise all systemically important financial institutions (bank and non-bank).** Splitting up this authority among the various functional regulators — such as the three bank regulators, the SEC (for securities firms), the CFTC, a merged SEC/CFTC or another relevant body (for derivatives clearinghouses), and a new federal insurance regulator — runs a significant risk of regulatory duplication of effort, inconsistent rules, and possibly after-the-fact finger-pointing in the event of a future financial crisis. Likewise, vesting authority for systemic risk oversight in a committee of regulators — for example, the President's Working Group on Financial Markets — risks indecision and delay. The various functional regulators should be consulted by the systemic risk regulator. In addition, the systemic risk regulator should have automatic and regular access to information collected by the functional regulators. But, in our view, systemic risks are best overseen by a single agency.[8]

If a single systemic risk regulator is designated, a question that must be considered is whether it, or the appropriate functional regulator, should actively supervise systemically important institutions. There are merits to either approach. However, on balance, we believe that the systemic risk regulator should have primary supervisory authority over SIFIs. There is much day-to-day learning that can come from regular supervision that could be useful to the systemic risk regulator in a crisis, when there is no room for delay or error.

In addition to overseeing or at least setting supervisory standards for SIFIs, the systemic risk regulator should be required to issue regular (annual or perhaps more frequent, or as the occasion arises) reports outlining the nature and severity of any systemic risks in the financial system. Such reports would put a spotlight on, among other things, rapidly growing areas of finance, since rapid growth in particular asset classes tends to be associated (but not always) with future problems. These reports should be of use to both other regulators and the Congress in heading off potential future problems.

A legitimate objection to early warnings is that policy makers will ignore them. In particular, the case

8. We are aware that the Committee has not asked for views about which regulator should have this authority, but if asked, we would suggest either a single new federal financial solvency regulator, or the Federal Reserve. For further details, see Testimony of Robert E. Litan before the Senate Committee on Homeland Security, March 4, 2009.

can be made that had warnings about the housing market overheating 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 the answer 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 policy making, the vivid memories of these events and their consequences will give a future systemic risk regulator (and all other regulators) much more authority when warning the Congress and the public of future asset bubbles or sources of undue systemic risk.

**Fifth, Congress should assign regulatory responsibilities for overseeing derivatives that are currently traded "over-the-counter" rather than on exchanges.** As has been much discussed, regulators already are moving to authorize the creation of clearinghouses for credit default swaps, which should reduce the systemic risks associated with standardized CDS. But these clearinghouses must still be regulated for capital adequacy and liquidity, either by specific functional regulators or by the systemic risk regulator.

Yet even well-capitalized and supervised central clearinghouses 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). Congress should enable an appropriate regulator 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 required.

**Finally, while there are legitimate concerns about the efficacy of financial regulation, we believe that these should not deter policy makers from implementing and then overseeing a special regulatory system for systemically important financial institutions.** We recognize, of course, that financial regulators did not adequately control the risks that led to the current crisis. But that does not mean that we should simply give up on doing something about the TBTF problem.

We should remember that U.S. bank regulators in fact were able to contain risk taking for roughly the 15 year period following the last banking crisis of the late 1980s and early 1990s, and financial regulators are already learning from their mistakes this time around. Furthermore, we take some comfort from the fact that Canadian bank regulators have prevented that country's banks from running into the trouble that our banks have experienced, by applying sensible underwriting and capital standards. So, regulation, when properly practiced, can prevent undue risk-taking.[9]]

Further, under the regulatory system we recommend, regulators would not be the only source of discipline against excessive risk-taking by SIFIs. They would be assisted by holders of long-term uninsured, convertible debt, who would have their money at risk and thus incentives to monitor and control risk-taking by the institutions.

In short, regulators, working hand in hand with market participants under the right set of rules, can do better than simply waiting for the next disasters to occur and cleaning up after them. The costs of cleaning up after this crisis — which eventually could run into the trillions of dollars — as well as the damage caused by the crisis itself should be stark reminders that we can and must do better to prevent future crises or at least contain their costs if they occur.

9. For a guide to how the Canadians have done it, see Pietro Nivola, "Know Thy Neighbor: What Canada Can Tell Us About Financial Regulation," March 2009, at www.brookings.edu.

## Improving Resolution of Non-Bank SIFIs

The Committee is surely aware of the many calls for extending the failure resolution procedure for banks to non-banks determined to be systemically important (either before or after the fact). The basic idea, known as "prompt corrective action" or "PCA", is to authorize (or direct) a relevant agency (the FDIC in the case of banks) to assume control over a weakly capitalized institution before it is insolvent, and then either to liquidate it or, after cleaning up its balance sheet (by separating out the bad assets), return it to private ownership (through sale to another firm or a public offering). Such takeovers are meant to be a last resort, only if prior regulatory restrictions and/or directives to raise private capital, have failed. Many have argued that had something like this system been in place for the various non-banks that have failed in this crisis — Bear Stearns, Lehman, and AIG — the resolutions would have been more orderly and achieved at less cost to taxpayers.[10]

We agree with this view. By definition, troubled systemically important financial institutions cannot be resolved in bankruptcy without threatening the stability of the financial system. The bankruptcy process stays payment of unsecured creditors, while inducing secured creditors to seize and then possibly sell their collateral. Either or both outcomes could lead to a wider panic, which is why a bank-like restructuring process — which puts the troubled bank into receivership, allowing the FDIC to transfer the institution's liabilities to an acquirer or to a "bridge bank" — is necessary for non-bank SIFIs.

Congress must resolve a number of complex issues, however, in creating an effective resolution process for these non-bank institutions.

First, the law should provide some procedure for identifying the systemically important institutions that are eligible for this special resolution mechanism in lieu of a normal bankruptcy. This can be done either by allowing the appropriate regulator (we would prefer this be a single systemic risk regulator) to designate specific institutions in advance as SIFIs and therefore subject to a special resolution process if they get into financial trouble, or on ad hoc basis, as the appropriate regulator(s) deem appropriate. Secretary Geithner, for example, has proposed that the Secretary of Treasury could make this designation, upon the positive recommendation of the Federal Reserve Board and the appropriate regulator, in consultation with the President. We favor a combination of these approaches: institutions subject to special regulation as SIFIs automatically would be covered by the special non-bank resolution process, while the Treasury Secretary under the procedure outlined by Secretary Geithner would have the ability to use the special resolution process for other troubled institutions deemed systemically important given unusual circumstances that may be present at a particular time.

Second, there must be clear and effective criteria for placing a financially weak non-bank SIFIs into the special resolution process, ideally before it is insolvent. In principle, bank regulators have this

10. Lehman was not rescued and thus all its losses have fallen on its shareholders and creditors. We won't know for some time the full cost of JP Morgan's rescue of Bear Stearns, which was aided by loans from the Federal Reserve, or certainly the much larger final cost of the Fed's takeover of AIG.

authority under FDICIA, but in practice, regulators tend to arrive too late — after banks are well under water (one recent, notable example is the failure of IndyMac, which is going to cost the FDIC several billion dollars).

There is really only one way to address this problem, for banks and non-bank SIFIs alike, and that is to raise the minimum capital-to-asset threshold that can trigger regulatory takeover of a weak bank or non-bank SIFI (if, by some chance, there is still some positive equity after an early resolution, it can and should be returned to the shareholders, as is the case for early bank resolutions, at least in principle). Since the appropriate threshold is likely to differ by type of institution, this reform is probably best handled by delegating the job to the appropriate regulator: the banking regulators for banks and Treasury and/or the FDIC for non-bank SIFIs (or the systemic risk regulator, if one is established). The capital-to-asset trigger also should be coordinated with any new counter-cyclical capital regulatory regime that may be established for banks and other financial institutions. In particular, once the new standards are phased in, they should not be so low in recessions as to render ineffective any capital-to-asset trigger designed to facilitate sufficiently early interventions by regulators to avoid or at least minimize losses to taxpayers.

Third, the resolution mechanism must have a well-defined procedure for handling uninsured creditor claims. Unlike a bank that has insured liabilities, the creditors of a non-bank are likely to be uninsured (unless they have bought reliable credit default protection, or they have some limited protection through other means: through state guaranty funds for insurance policy holders or through SPIC for brokerage accounts). In a normal bankruptcy, creditors are paid in order of seniority and whether their borrowings are backed by specific collateral. Market discipline requires that creditors not be paid in full if there are insufficient corporate assets to repay them. However, what makes a non-bank systemically important is that the failure to protect at least short-term creditors can trigger creditor runs on other, similar institutions and/or unacceptable losses throughout the financial system.

There are several ways to handle this problem. One approach would require all SIFIs, bank and non-bank, to file a resolution plan with their regulator, spelling out the procedures for "haircutting" specific classes of creditors if the regulator assumes control of the institution. Another approach is to have the regulators spell out those procedures including minimum haircuts that each class of creditors would be expected to receive if the regulators assume control of the institution. A third idea is to address the issue on a case by case basis — for example, by dividing the institution into a "good" and "bad" entity, and require shareholders and creditors to bear losses associated with the "bad" one. Of course, to be truly effective in preserving market discipline, regulators actually must imposes losses under any of these approaches on unsecured creditors, which as recent events have demonstrated, can be difficult, if not impossible, to do.

In particular, when overall economic conditions are dire, as they have been throughout the current crisis, regulators will feel much pressure to protect one or more classes of creditors in full, regardless of what any pre-filed or mandated resolution plan may say (or what the allocation of losses may be as a result of splitting the institution in two). Thus, in the banking context, FDICIA enables regulators to guarantee all deposits, included unsecured debt, of banks when it is deemed necessary to prevent systemic risk. This "systemic risk exception" to the general rule that only insured deposits are covered may be invoked, however, only with the concurrence of 2/3 of the members of the Federal Reserve Board, 2/3 of the members of the FDIC Board, and the Secretary of the Treasury, in consultation with the President. Even then, the Comptroller General must make a report after the fact assessing whether the intervention was appropriate. A similar systemic risk exception (with the perhaps the same or a similar approval procedure) should also be established for debt issued by troubled non-bank SIFIs (Secretary Geithner has suggested that government assistance be provided when approved by the Treasury and the FDIC, in consultation with the Federal Reserve and the appropriate regulatory authority).

Fourth, the resolution process should be overseen by a specific agency. The Treasury has proposed that the FDIC handle this responsibility, as has the current FDIC Chair. Given the FDIC's expertise with resolving bank failures, expanding its authority to cover suitable non-banks makes sense.

Fifth, the non-bank resolution process must have a funding mechanism. This is relatively easy, as these things go, for banks, which are covered by an explicit deposit insurance system that is funded by all members of the banking industry. Of special relevance to the TBTF issue, if the federal government guarantees uninsured deposits and other creditors of any banks under the "systemic risk exception", all other banks must be assessed for the cost, although the FDIC can borrow from the Treasury to finance its initial outlays if its reserves are insufficient (under current law, the FDIC's borrowing limit is $30 billion, but in light of the current crisis, the agency is requesting that this limit be raised to $500 billion).

It is difficult to structure an assessment structure for the costs of rescuing the creditors of non-bank SIFIs, however. For one thing, who should pay? Just the other members of the industry in which the failed SIFI is active (such as other hedge funds or insurers, as the case may be), all non-bank SIFIs, or even all non-banks? Under any of these options, what would be the assessment base, and should the contribution rate differ by industry sector? And should any assessment be collected in advance, after the fact, or both?

Merely asking these questions should make clear how difficult it can be to design an acceptable industry-based assessment system. We realize that on grounds of equity, it would be appropriate only to assess other SIFIs, assuming they are specifically identified. But this approach may not raise sufficient funds to cover the costs involved. We note that the costs of the AIG rescue alone, for example, are approaching $200 billion. A similar amount has been put aside for the conservatorships of Fannie Mae and Freddie Mac.

Congress could broaden the assessment base to include all non-bank institutions (to cover the costs only of providing financial assistance to non-bank SIFIs). This may not appear equitable on the surface, but if the institution receiving government funds is truly systemically important then even smaller institutions do benefit when the government steps in to prevent creditor losses at a SIFI from damaging the rest of the financial system.

Indeed, if an institution is truly systemic, then everyone presumably benefits from not having the financial system meltdown, which is why it is advisable in our view for Congress to give the FDIC and/or the Treasury an appropriation up to some sizeable limit — say $250 billion — that could be tapped, if necessary for future non-bank SIFI resolutions. Congress may also want to instruct the FDIC and/or the Treasury to use this appropriation only as a resort, and turn to assessments on some class of institutions first. We have no objection to such an approach, but for reasons just noted, there is no perfect way to do that. In any event, as with bank resolutions under the systemic risk exception, the Comptroller General should be required to report to Congress on all non-bank resolutions, too: whether government-provided financial assistance was appropriate, and whether the resolution was completed at least cost.

However the Congress decides these issues, it should do so promptly, without waiting to reach agreement on a more a comprehensive financial reform bill. The country clearly would be best served if a new resolution process were in place before another large non-banking firm approaches insolvency before this recession is over.

## Concluding Observations

We would like to close with perhaps the obvious observation that addressing the TBTF problem is not simple. Further, as we have noted, it is unreasonable to expect any new policy framework to prevent all future bailouts, and future bubbles. Perfection is not possible in this or any other endeavor, and suggestions for policy improvements should not be judged against such a harsh and unrealistic standard.

The challenge before the Congress instead is to significantly improve the odds that future bailouts of large financial institutions will be unnecessary, without at the same time materially dampening the innovative spirit that has driven our financial system and our economy. We believe that goal can be accomplished, but it will take time. Congress will write new laws, but will have to place considerable faith in regulators to carry them out. In turn, regulators will make mistakes, they will learn, and they will make mid-course corrections.

This committee is certainly well aware that regulation can never fully keep up with market developments. Private actors always find ways around rules; economists call this regulatory arbitrage, in which the regulatory "cats" are constantly trying to keep the private "mice: from doing damage to the financial system. This crisis has exposed the unwelcome truth that over the past several years, some of the private sector mice grew so large and so dangerous that they threatened the welfare of our entire financial system. It is now time to beef up the regulatory cats, to arm them with the right rules, and to assist them with constructive market discipline so that the game of regulatory arbitrage will be kept in check, while the financial system continues to do what it is supposed to do: channel savings efficiently toward constructive social purposes.

Thank you and we look forward to addressing your questions.

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