

**TOO BIG TO FAIL OR TOO BIG TO SAVE?:
EXAMINING THE SYSTEMIC THREATS OF LARGE
FINANCIAL INSTITUTIONS**

HEARING

BEFORE THE

**JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES**

ONE HUNDRED ELEVENTH CONGRESS

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TUESDAY, APRIL 21, 2009

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met at 9:36 a.m., in Room 210 of the Cannon House Office Building, the Hon. Carolyn B. Maloney (Chair), presiding.

Senators present: Klobuchar and Brownback.

Representatives present: Maloney, Cummings, Burgess, and Miller.

Staff present: Gail Cohen, Nan Gibson, Colleen Healy, Marc Jarsulic, Barry Nolan, Lydia Mashburn, Jeff Schlagenhaut, Jeff Wrase, Chris Frenze, and Robert O'Quinn.

**OPENING STATEMENT OF HON. CAROLYN B. MALONEY, CHAIR,
A U.S. REPRESENTATIVE FROM NEW YORK**

Chair Maloney. The meeting will come to order. Good morning. I want to welcome our extraordinary panel of witnesses and thank you all in advance for your testimony today.

This hearing is timely because Congress expects soon to take up legislation being prepared by the administration to address the Federal Government's inability to wind down nonbank financial institutions in an orderly way. The current financial crisis has made clear that we need additional tools to handle financial institutions that are too big to fail. The disorderly failure of large financial institutions can pose a significant threat to the stability of the financial system both in the United States and globally.

The panic after Lehman Brothers declared bankruptcy last September and the unprecedented drop in jobs during the months since then is evidence enough that under our present regulatory structure, allowing large financial firms to fail can seriously damage our economy. Another failure could have created even worse economic consequences with even deeper effects on employment, incomes and growth.

On the other hand, unconditional support for large failing firms can be just as dangerous. Implicit guarantees give firms incentives to take bigger risks. Allowing firms to escape the consequences of bad business decisions could prompt even riskier behavior. Our financial regulators presently lack the means to steer between these two unacceptable alternatives.

Chairman Bernanke and Treasury Secretary Geithner recently testified before the House Financial Services Committee that without new legislation they lacked the authority to conduct an orderly unwinding of large financial institutions such as AIG.

The FDIC has mechanisms in place to allow resolution of failed depository institutions. For the other subsidiaries, the bank holding companies, and for investment banks, insurance companies, and other large financial firms, the only option seems to be bankruptcy.

Fixing our financial system is of the utmost importance. We are therefore fortunate to have with us this morning three outstanding experts on the topic of restoring confidence in our financial system while minimizing both the cost to taxpayers and the incentives for institutions to take excessive risks in the future. I am confident that we in Congress can work with the administration to solve this crisis and give regulators better options and tools to prevent, as well as cope with, future financial crises.

[The prepared statement of Representative Maloney appears in the Submissions for the Record on page 50.]

Chair Maloney. And I am delighted to recognize the Ranking Member for 5 minutes and every other member for 5 minutes.

**OPENING STATEMENT OF HON. SAM BROWNBACK, RANKING
MINORITY, A U.S. SENATOR FROM KANSAS**

Senator Brownback. Thank you very much, Madam Chairman. I appreciate that. Welcome, panelists, Dr. Stiglitz, Dr. Johnson, Mr. Hoenig. I am delighted to have you here. The Chairman and I talked about doing a panel like this sometime in the past. I am very appreciative that you have put this together and you have got such an excellent set of witnesses.

My hope is that there will be other members and groups looking in and tuning in to this, because we have got a huge problem and I don't think we are yet headed in the right direction to fix it. I have reviewed and what some of the panelists have said; I think you have got some quite useful ideas for us to be able to consider. So it is my hope that this will be a very important hearing as we look back on the history of the mess that we are in and that we start figuring a real road out.

Mr. Hoenig, I read your recent speech last night. I have been circulating an earlier speech that you gave about too-big-to-fail has failed, that the overall policy has failed. And I have thought that and it just, I guess, really resonated with me and has with a number of my constituents, that what we have done has made the matter worse, and we have taken a strategy that hasn't produced an end, and we continue to pour money into a leaky ship that it is still listing.

And at the same time, I saw the Wall Street Journal yesterday showing that big-bank lending is continuing to decrease, bank lending keeps dropping. Now, this is going the exact opposite direction of what we had hoped at this point in time.

I just finished a 2-week break, as we all did in Congress. I am traveling around home, and everybody is saying that banks are still not lending. And the way out of this is to get the banks operating and working again. And I go to the homebuilders and the construction builders, who say the bank is not lending. The banks

say, we can't because the regulators won't let us lend. Regulators say, we are not doing anything any different.

But, clearly, at the end of the day, the thing that exacerbates the current situation that we are in is that credit continues not to flow, and this is a key thing for us to watch. And it also, I think, points out that the idea of what we have pursued, that too-big-to-fail has failed. And we have got to get to a system that can get us right-sized and get going again.

I am deeply concerned that the government's response to date has served to increase confusion in the marketplace rather than to restore order. And that is a very big issue, because until that confidence returns to the marketplace, you are going to continue to see bank lending drop and you are going to continue to have people wait and see what the Federal Government is going to do to resolve this before anything real happens.

I appreciate very much the panelists being here. I look forward to the questions and the comments that you have about a different way to go to get us into some sort of resolution that can restore public confidence, that the public can know which way the government is going, and that we can get banks back to lending again in some sort of stable system. And what I hope we can do from this hearing is pass your information on to many others for people to look at another way, a way that can get us out of this crisis.

Madam Chairman, I would like to put my full statement in the record, as presented, and I look forward to the question-and-answer session.

Chair Maloney. Without objection.

[The prepared statement of Senator Brownback appears in the Submissions for the Record on page 50.]

**OPENING STATEMENT OF HON. MICHAEL BURGESS, M.D., A
U.S. REPRESENTATIVE FROM TEXAS**

Representative Burgess. And I too am pleased to be joining with the Chair and Senator Brownback in welcoming this distinguished panel of witnesses testifying before us this morning.

We are, of course, very concerned and continue to be concerned about the state of the economy and the concept before us this morning. The concept of too-big-to-fail and its effect on the economy is one that has troubled many of us for some time.

The roots of the current crisis are to be found in government policies that encouraged risky mortgage lending practices as well as a breakdown of lending standards in the private sector. Many banks and other financial institutions made investment decisions that resulted in huge losses that now have to be written down.

Some think the financial situation is improving. The fact remains that loan defaults continue to trend upward and probably will for some time to come. The administration has responded with a plan, announced on February 10, based on public and private partnerships to purchase the toxic assets of banks. Many economists have raised concerns about whether this plan is adequate, given the magnitude of the problem of the banking sector.

Estimates of the amount of toxic assets in the United States banking system now range up to \$2 trillion. The administration plan relies heavily on providing generous subsidies to private-sec-

tor participants who would enjoy half of any private-sector profits. However, if the partnership fails, the taxpayers would shoulder over 90 percent of the losses. The prospect of trillions of dollars of taxpayer money at risk in this plan is indeed very troubling.

I am also disturbed by the lack of transparency and accountability in the administration plan. The Treasury seems to have designed the plan specifically to evade the congressional appropriation process. Trillions of taxpayer dollars are at risk. But congressional approval is not needed for the plan to proceed. On its face, this is a violation of the democratic process.

Perhaps some of the witnesses today can—perhaps Dr. Stiglitz said it best when he characterized the recent Treasury proposal as “robbery of the taxpayers.” There is even speculation that the firms receiving the bailouts could also directly or indirectly participate and enjoy the subsidies offered in the Treasury plan. I remain concerned that the cost of the plan will be exorbitant, and it will not work effectively to solve the financial crisis.

Putting the future impact of the Department of Treasury’s plan aside for a moment, I also want to spend just a minute and talk about something that I hear every time that I go back home. And that relates to the beginnings of this crisis, whether it be in 2007 or 2008, or indeed if it began with the failure of Lehman Brothers in September of 2008. But why has there been no concerted congressional investigation as to what went wrong and who was accountable? The old “what did they know and when did they know it?”

We had a commission to investigate the 9/11 failings. And while there were good things and bad things that came out of that, they did their job and they produced a report that all of us now refer to. And in fact several legislative proposals have come out of that report.

The Iraq Study Group in the fall of 2006 produced a report, some of which I disagreed with, but nevertheless they produced a report. And, arguably, it was the basis of that report which ultimately led to the successes we saw on the ground in Iraq.

So while I am not a big fan of commissions and I am not a big fan of Congress giving up any of its authority, I think this is the situation that cries out for that, and indeed congressional credibility is on the line. And I am not alone in this. I am going to be introducing a bill later on this week with Congressman Brady to authorize just such a commission. But Friday’s *Investors Business Daily*, in its lead editorial appropriately called “Probe Yourselves,” talks about Speaker Nancy Pelosi calling for a commission to do just such an investigation and hold people accountable. The lead quote is, “House Speaker Nancy Pelosi wants a broad probe of Wall Street much like that in 1932 that led to sweeping bank reforms.” Good idea. Let the probing begin.

Now the editorial writing said, let it begin with Pelosi’s Congress. But nevertheless let’s do the investigation, let’s find out where the fault lies and let’s not go through this again anytime soon.

So, Madam Chairwoman, I thank you for the indulgence for the time to talk about this. I will be introducing it later on this week with Congressman Brady, and I certainly look forward to the testi-

mony of our witnesses today. I would ask unanimous consent to insert the Investors Business Daily, the total of the editorial, for the record.

[The prepared statement of Representative Burgess appears in the Submissions for the Record on page 51.]

[The editorial entitled "Probe Yourselves" appears in the Submissions for the Record on page 52.]

Chair Maloney. The Chair recognizes Mr. Cummings.

OPENING STATEMENT OF HON. ELIJAH E. CUMMINGS, A U.S. REPRESENTATIVE FROM MARYLAND

Representative Cummings. Thank you very much, Madam Chairlady. I wanted to thank you for calling today's hearing to enable us to assess the nature of the systemic risk posed by large financial institutions and the legal and regulatory measures that should be put in place going forward to ensure that no financial firm's actions can ever again put our entire economy at risk.

These issues are of central importance at this time, and perhaps the example of AIG best illustrates what the concept of too-big-to-fail has really come to mean to United States taxpayers. By varying estimates, AIG has received between \$170 billion and \$180 billion in taxpayer aid. The TARP aid being provided to this firm is provided under a category called "systemically significant failing institutions," a name that frankly says it all.

The question that should have been understood and answered long ago was, one: Under what circumstances should a firm be allowed to become systemically significant? And two: How can we ensure such a firm is fully subject to the consequences of failure?

Given, however, that we failed to address either of these issues adequately, our Nation is now essentially held hostage to a vicious cycle in which the mere threat of the downgrade of AIG's credit rating could trigger massive financial obligations that would have consequences unacceptable to our economy. To prevent this scenario from playing out, we appear forced to pay whatever it takes to prevent what would normally be the consequence of failure, which is bankruptcy, if not liquidation.

Bankruptcy and liquidation are precisely what have happened to so many firms that have obviously been deemed "small enough to fail." And those employees are suffering the consequences as they join the ranks of the unemployed by the hundreds of thousands each month. But because AIG and other financial firms are being too big to fail, they have said they have essentially become or been made immune to the full consequences of their actions.

Since the emergence of the financial crisis, the witnesses who appear before us today have commented with blistering clarity on the assumptions, such as the assumption that our modern financial system could and would effectively manage risks that led to the creation of firms too big to fail, and that have now tied us in knots.

In particular, they have described the evolution of a shared mind-set among Wall Street employees and government regulators that appears to have inhibited critical examination of the growing risks being created by stunningly complex financial transactions.

They have also argued that the responses to the current crisis have simply perpetuated some of the most questionable assump-

tions by isolating the failed firms—which is precisely what they are—in an artificial cocoon of taxpayer aid, which apparently not even the most basic consequences of failure appear to apply. Thus, AIG and other bailed out firms have continued to operate as if they have every right to expect taxpayers not only to clean up all the binding obligations they have created and that now binds us, but also to fund their parties and their private jets.

Bailed-out firms and their employees have also continued to demand outrageous bonuses and other perks. AIG has spoken with a straight face of how critical it is to pay bonuses to employees who unwinding and stunningly complex transactions created by the financial products division, precisely because they are the only ones who could understand them, and thus are so indispensable their departures would cause the situation to worsen, costing us all the more. Such situations in which firms are essentially able to hold guns to the government's collective head and then repeatedly threaten to pull the trigger are simply absurd, and yet this is what we have allowed the term “too big to fail” to mean to us. Particularly as Special Inspector General for TARP, Neil Barofsky, has just issued a report that warns of extending old assumptions to additional aspects of the bailout.

I look forward to the testimony of today's witnesses and I look forward to hearing their frank assessments of how to identify and control systemic risks.

And with that, Madam Chairlady, I yield back.

Chair Maloney. Thank you very much for your testimony.

Now I would like to introduce our distinguished panelists. Professor Joseph Stiglitz is a university professor at Columbia University in New York and chair of Columbia University's Committee on Global Thought. He is also the cofounder and executive director for the Initiative for Policy Dialogue at Columbia. In 2001 he was awarded the Nobel Prize in economics. He had previously received the John Bates Clark medal in 1979. Dr. Stiglitz was a member of the President's Council of Economic Advisors from 1993 to 1995, during the Clinton administration, and served as CEA chairman from 1995 to 1997. He then became chief economist and senior vice president of the World Bank from 1997 to 2000. Dr. Stiglitz graduated from Amherst College and received his Ph.D. from MIT in 1967.

Dr. Simon Johnson is the Ronald A. Kurtz professor of entrepreneurship at MIT's Sloan School of Management. He is also a senior fellow at the Peterson Institute for International Economics in Washington. He is also a member of the Congressional Budget Office's Panel of Economic Advisors. In 2007 and 2008 Professor Johnson was the International Monetary Fund's economic counselor and chief economist and director of its research department. He holds a Ph.D. in economics from MIT and an MA from the University of Manchester and a BA from the University of Oxford.

Dr. Thomas Hoenig is the president of the Federal Reserve Bank of Kansas City, a position he has held since 1991. He currently serves as an alternate voting member of the Federal Open Market Committee. Dr. Hoenig joined the Federal Reserve Bank of Kansas City in 1973 as an economist in the banking supervision area. He was named vice president in 1981 and a senior vice president in

1986. He earned a BA in economics and mathematics from Benedictine College in Kansas and MA and Ph.D. degrees in economics from Iowa State University.

I want to thank all of you very, very much for coming.

Chair Maloney. And Dr. Stiglitz, will you please proceed with your opening testimony. We are asking each of you to testify and summarize your remarks in 5 minutes so that there is more time for questions. Thank you.

**STATEMENT OF HON. JOSEPH E. STIGLITZ, NOBEL LAUREATE,
PROFESSOR, COLUMBIA UNIVERSITY, FORMER CHAIRMAN,
COUNCIL OF ECONOMIC ADVISERS, NEW YORK, NY**

Dr. Stiglitz. Thank you very much for allowing me to speak and for holding these hearings. I think some of the introductory remarks have already drawn attention to some of the issues I wanted to discuss.

Too little attention has been given to the question of what kind of a financial system we want to have as we emerge from this crisis. The decisions we make today on how to rescue our financial system inevitably will shape the financial system of tomorrow.

As we think about what kind of financial system we would like, we should begin by recognizing the failures of our existing system. We have a financial system which created risk and misallocated capital, but with high transaction costs.

While our banks have not been at the center of our economy's dynamic growth, they have been at the center of this tempest. They have created risk for our country, without any offsetting rewards for our society; though, to be sure, those in the industry have been rewarded well.

Our financial system discovered that there was money at the bottom of the pyramid and made a concerted effort to make sure that it did not remain there. They engaged in predatory lending. It is ironic that they were hoisted by their own petard in the subprime mortgage market.

As an aside, preventing banks from being too big to fail and intense regulation of these too-big-to-fail institutions is not the only thing that is needed. We need a financial products safety commission to assess which financial products are safe for use by consumers and for what purposes. This commission will help in addressing the problems of the too-big-to-fail banks as well, and it will take risk out of the system. These banks won't be able to buy up big packages of financial products that have a high risk of non-payment.

We need strong regulation at the bottom of the pyramid to complement the strong relation at the top that I describe below. In some developing countries modern banking services have been extended to even the poor and sometimes remote villages. The poor in our inner cities still use check-cashing services, which charge exorbitant fees. Modern technology should have resulted in the low-cost electronic payment mechanism.

Our system entails exploitive fees to both businesses and consumers. Thus, as we go about repairing or bailing out our financial system, we must keep in mind the kind of system we want to have going forward. We should not want to go back to the world we had

before the crisis, nor can we. We had too big of a financial sector. In the post-crisis era, the financial sector as a whole will shrink. There is no good case for making the smaller competitive community-oriented institutions, which have provided the majority of lending to small- and medium-sized enterprises, take the brunt of the downsizing. One of the key problems comes from allowing certain institutions to become too big to fail, or at the very least very expensive to save.

Yet the response to the crisis has led to the consolidation of the big banks, increasing the risk of the surviving banks becoming too big-to-fail. Some of the too-large-to-fail banks have been the recipients of huge subsidies under TARP and the other bailouts and guarantee programs sponsored by Treasury, the Fed and FDIC.

To date we have not had any systemic and systematic comprehensive accounting. Congress should demand this both from the agencies and from the CBO. Our bailouts run the risk of transferring large amounts of money to those banks that did the worst job in risk management—hardly principles on which normal market economics is based—and to their shareholders and to the bondholders. Among these are some of the too-big-to-fail banks. In effect, the government is tilting the playing field towards the losers.

Much of the discussion of regulatory reform has skirted the main issues. There is talk about the need for comprehensive oversight of hedge funds. Remember, the core problems were not with the hedge funds, but with the regulations and regulatory enforcement for big commercial investment banks. It is that which has to be fixed. Being too big to fail creates perverse incentives for excessive risk-taking, and it also distorts the marketplace in another way: There are hidden subsidies which have increased in the current crisis. We could have reduced the extent of moral hazard that we created in the subsequent bailouts had we made an obvious distinction between bailing out the banks and bailing out the bankers, their shareholders, and their bondholders.

We have similarly confused too big to fail with too big to be financially restructured. Moreover, it is usually far cheaper to target money where it is needed than to rely on trickle-down economics. The decisions of both the Obama and Bush administrations to extend unnecessarily the corporate safety net has meant that incentives are more distorted, the costs to our economy are greater, and our national debt will be massively larger than it otherwise would have been.

It is not too late to change this policy. With the bailout of AIG, we have officially announced that any institution which is systemically significant will be bailed out. I think it is imperative that Congress narrow the breadth of this new corporate welfare state. It is people that we should be protecting, not corporations.

There are but two solutions, breaking up the institutions or regulating them heavily. We need to do both. The only justification for allowing these huge institutions to continue is that there are significant economies of scale and scope that otherwise would be lost. I have seen no evidence to that effect. Because we know that there will be pressures over time to soften any regulatory regime, and because any regulatory regime itself is imperfect, it is I think impera-

tive that we break up these too-big-to-fail institutions and strongly restrict the activities in which they can be engaged.

But we know that our efforts to limit the development of too-big-to-fail institutions will not be perfectly successful in the best of circumstances. Hence, our regulatory structure must prepare to deal with any financial institutions that are too big to fail.

In previous testimony I have laid out what is required in terms of a comprehensive regulatory framework, including strong restrictions on incentive structures, corporate governance, risk-taking, leverage, derivatives and so forth. We have to be aware that there will be attempts at cosmetic reforms, not real reform. Too-big-to-fail banks should be forced to conduct the boring business of doing conventional banking, leaving the task of risk-taking to others. There are plenty of other institutions, not depository institutions and not too big to fail—not so big that their failure would bring the entire economy down—that are able to take on the task of risk management. Such a reform would increase the efficiency of the economy.

The restrictions on their activities may yield low returns, but that is as it should be. High returns that were earned in the past were the result of risk-taking taken at the expense of American taxpayers. A basic law in economics is that there is no free lunch. Higher-than-normal returns come with risk, and these too-big-to-fail institutions are not the ones that should be undertaking this risk.

What I am arguing for is a variant of what is sometimes called the Public Utility Model: in return for the implicit or explicit guarantees associated with these too-big-to-fail institutions we should demand the highest standards of corporate governance. The too-big-to-fail banks should also be required to provide banking services to underserved communities at prices and terms that are competitive, reflecting actual cost.

The too-big-to-fail banks should be put at the center of a new electronic payment system that will use modern technology to provide a 21st century payment system at a low cost for America. They should not be allowed to engage in the predatory credit card practices that have become commonplace. We should have a 21st century efficient and fair credit system to correspond to our 21st century electronic payment mechanism.

Being too big to fail gives these banks a distinct advantage over stand-alone institutions. It is neither equitable nor efficient to force those banks that have been doing the job of real banking to pay for the losses of the too-big-to-fail banks.

One of the disturbing aspects of the recent bailouts is the absence of a clear set of criteria and a seeming inconsistency in practice that was referred to earlier. Before a crisis every financial institution will claim that it does not pose systemic risk. In a crisis almost all will make such claims. Recognizing this, we must take a precautionary approach. A systemically significant firm is any whose failure alone or in conjunction with other firms following similar investment strategy leads to a cascade of effects, significant enough to justify government intervention. If those in the financial market continue to insist, as they have been, that allowing any major bank to go under or allowing bondholders to take significant

reductions in value would lead to a cascade of effects simply because of fears that it might induce among bondholders, then the reach of institutions that fall within the rubric of too big to fail and needs to be greatly broadened.

One cannot have it both ways: claim that we only need to regulate tightly the largest institutions who are too big to fail and claim, at the same time, that a bankruptcy of any large institution would lead to cascade effects through market expectations. The taxpayer is told he must pony up billions because it is too risky to allow bondholders' interest or even shareholders' interest to be diminished. As it should under normal rules of a market economy, the net of strong regulation has to be correspondingly wide.

There will be those who argue that the regime I have proposed will stifle innovation. A disproportionate part of the innovations in our financial system were aimed at tax, regulatory, and accounting arbitrage. They did not produce innovations which would have helped our economy manage some critical risk better, like the risk of home ownership. In fact, their innovations made things worse.

I believe that a well-designed system along the lines I have described will be more competitive and more innovative, with more of the innovative effort directed at innovations which will enhance the productivity of our firms and the economic security and general well-being of our citizens. Thank you.

Chair Maloney. Thank you.

[The prepared statement of Joseph E. Stiglitz appears in the Submissions for the Record on page 53.]

Chair Maloney. Dr. Johnson.

STATEMENT OF SIMON JOHNSON, RONALD A. KURTZ PROFESSOR OF ENTREPRENEURSHIP, MIT'S SLOAN SCHOOL OF MANAGEMENT; SENIOR FELLOW, PETERSON INSTITUTE; FORMER ECONOMIC COUNSELOR, INTERNATIONAL MONETARY FUND, CAMBRIDGE, MA

Dr. Johnson. Thank you very much. I would like to underline the seriousness of the current situation and the dangers inherent in our system with two numbers in the beginning. The first is, as you may have heard, is that the IMF's new estimate released this morning of global financial losses, \$4.1 trillion. Now, those are not all, obviously, in the United States but they are primarily due to the behavior of large banks in the United States and in Western Europe. This is an extraordinary problem. It is a global problem. We are very far from being out of it.

The second number is my own purely personal estimate of the increase in privately held government debt that will result from this enormous financial fiasco. As you know, when we started the crisis the CBO placed this measure of government debt around 40 percent—41 percent to be precise—of GDP. I think that when we are done with the various bailouts and the fiscal responses that are, in my opinion, appropriately called for, we will be much closer to 80 percent of GDP. We cannot afford to have another crisis of this magnitude anytime in the next 5 years or 10 years or maybe even 20 years. It is simply too expensive to the taxpayer.

And I would completely endorse many of the proposals, probably all the proposals, put forward by Professor Stiglitz in this regard.

But I would go further. I think the danger of the situation, the danger to the taxpayer, is so large and so imminent that we should consider seriously applying our existing antitrust laws to breaking up the country's largest banks. I realize that this is a departure from standard practice. I understand that it is a step not to be taken lightly, particularly in an economic downturn of this nature, nor do I think that it is a measure that you adopt tomorrow or try to implement in the next 3 months.

But I think as a complementary set of actions to Professor Stiglitz's proposed Public Utility Model for banking, considering these banks to be too large to fail, so large that they endanger the interests of consumers, of taxpayers, very much in the same way that an industrial monopoly can endanger the interest. In fact, if you consider the amount of damage that has actually been done by this banking system and by the institutions that are too large to fail, because they felt immune from damage because they believed—correctly, as it turns out—they were too big to fail, this far exceeds any of the damages done by any of our industrial monopolies or potential monopolies at least since the end of the 19th century.

You have to go back I think to the end of the antitrust movement and to the concerns that were expressed then by Teddy Roosevelt, and other leaders of that thinking, in terms of the source of the power, the source of the political influence and the economic damage that could be done by very large interests. In those days it was industrial. Now it is financial. And I would emphasize that while I don't at all subscribe to view this as any kind of conspiracy at work here, I do think since 1980—and I laid this out in my written testimony and in other work—since 1980 we have really shifted in this country away from having a financial sector that was important and a central part of the functioning of the economic and political system towards something that was much larger, much bigger in political terms as well as in economic terms.

And we have also constructed it to be, quite honest, a system of belief both in industry and in our political life and absolutely in academia in which we thought that what was good for Wall Street and what was good for big finance on Wall Street was good for the economy. That was a mistake. That was a very big conceptual error. And I think Mr. Cummings alluded to this in his opening remarks.

And Dr. Burgess, I would stress that not only—I would agree with you on the mortgage practices source, of course. But I would suggest that we put that in a broader framework and ask how did we get a financial sector that was so powerful that it could lobby for—and I understand they were not unassisted in this matter but for sure they wanted less regulation of derivatives, of mortgage lending that the capital flows that we worry about around the world, the so-called issue of global imbalances, clearly—and there are many claims out there that this played also a role in lowering interest rates and making credit conditions easier. All of these conditions were very much parts of a system that was incredibly favorable to big finance.

Now, I am not suggesting that we can dismantle this immediately. I think that we have encountered a situation very much

like how you would feel after a serious problem at a nuclear power plant. I don't think you can uninvent nuclear power. I don't think you want to close down all of your nuclear power stations immediately. I think you need to move nuclear power—in this case financial services—toward the Public Utility Model, so nicely articulated by Professor Stiglitz. But in addition, to make sure that as, for example, the administration applies the resolution authority, which they are currently seeking from Congress and which I believe you will feel the need to—and you should feel the need to grant them—as they apply that, I think the use of antitrust to break up the largest banks will be essential.

There will be a lot of resolution. There is already a run in the credit market on some of our country's largest financial institutions. We can discuss that further if you like, particularly perhaps more in private. This is a very serious imminent danger. It needs to be addressed. It needs to be addressed partly through the Public Utility Model. But I think also partly through—and absolutely through the regulation of behavior, which Professor Stiglitz has articulated, but also through a much more aggressive and innovative application of our existing antitrust laws. Thank you very much.

Chair Maloney. Thank you.

[The prepared statement of Simon Johnson appears in the Submissions for the Record on page 59.]

Chair Maloney. Mr. Hoenig.

STATEMENT OF THOMAS M. HOENIG, PRESIDENT, FEDERAL RESERVE BANK OF KANSAS CITY, KANSAS CITY, MO

Mr. Hoenig. Madam Chair Maloney and Ranking Member Brownback and the other members of the committee, I want to thank you for the opportunity to testify at this hearing here this morning.

Certainly the United States currently faces economic turmoil related directly to the loss of confidence in our largest financial institutions because policymakers accepted the idea that some firms are just too big to fail. I do not. Despite record levels of expenditures we have not seen the return of confidence or transparency to financial markets, leaving lenders and investors weary of making new commitments. Until confidence is restored, a full economic recovery cannot be achieved.

When the crisis began to unfold last year and its full depth was not yet clear, substantial liquidity was provided to the financial system. With the crisis continuing and hundreds of thousands of Americans losing their jobs every month, it remains tempting to pour additional funds into large firms in hopes of a turnaround. However, actions that strive to protect our largest institutions from failure risk prolonging the crisis and increasing its cost.

A particular concern to me is the fact that financial support provided to firms considered too big to fail provides them a competitive advantage over other firms and subsidizes their growth and profit with taxpayer funds. Yes, these institutions are systemically important. But we all know that in a market system, insolvent firms must be allowed to fail, regardless of their size, market position or the complexity of operations.

In the rush to find stability, no clear process was used to allocate TARP funds among the largest firms. This created, in the end, further uncertainty and is impeding the recovery. We have options that could provide more successful outcome, but there are several hard steps that have to be taken. Here are two:

First, we must, in a sense, triage systemically important financial firms based on their current condition. For those that are well capitalized, we move on. Those that are viable but need more capital either raise it privately or seek government assistance, with the taxpayer put in the senior position and the government determining the circumstances of the senior managers and directors.

Second, nonviable institutions must be allowed to fail and could be put into a negotiated conservatorship, even today, as was done in 1984 with the holding company Continental Illinois, and reprivatized as quickly as possible. Such actions serve to ensure that when public funds are used, and they may well be needed, management and shareholders bear the full cost of their actions before taxpayer funds are committed. It would give the public confidence in the process and mitigate the need for the government to then micromanage the institution. Such a resolution process is equitable across funds, has worked in the past and favors the taxpayer.

Past experience also suggests this approach is much less costly than the alternative of not recognizing losses and allowing forbearance, as Japan initially did with its problem banks during its lost decade, and as the United States initially did with thrifts in the 1980s.

As we look to the future, of course, we will turn to the matter of regulatory reform as a way to address this. It is critical that we correctly diagnose the cause of this crisis. The structure of our regulatory system is neither the cause nor the solution. These too-big-to-fail institutions are not only too big, they are too complex and too politically influential to supervise on a sustained basis without a clear set of rules constraining their actions.

When the recession ends, old habits, I assure you, will reemerge. Thus we should focus on defining the supervisory framework and operational rules that over the decades have provided the best outcomes, no matter the complexities and dynamics of the market. For example, history has shown that strong limits on ratio levels work.

Finally, I do want to mention that the structure of the Federal Reserve System is also not the problem, as has recently been suggested. It would be a sad irony if the outcome of a crisis initiated on Wall Street was to result in Wall Street gaining power at the expense of other parts of the country.

The twelve regional Federal Reserve banks that make up the Federal Reserve System were established by Congress specifically to address the populist outcry against concentrated power on Wall Street in the past. Its structure reflects a system of checks and balances that serves us well at all levels of government and is the reason I am here today, able to express an alternative view.

I look forward to your questions, Madam.

Chair Maloney. Thank you very much for your testimony.

[The prepared statement of Thomas M. Hoenig appears in the Submissions for the Record on page 66.]

Chair Maloney. I would like to ask all of the panelists, beginning with Dr. Stiglitz and going down the line, if anyone else would like to comment, or I hope you do comment. Would you say that we have a double standard in place right now in our banking system? Smaller banks that do not pose a risk to the financial system are shut down, while larger systemically important ones are allowed to continue with little penalty to creditors or counterparties.

And specifically to your testimony, Dr. Stiglitz, you testified that you don't see any economics of a scale or scope with large financial institutions. If the United States returns to a banking system that is narrower and more functionally regulated and smaller, do we run the risk of losing our financial edge in the global economy?

Some argue that the large Universal Bank Model is needed in order to compete in the world and global economy.

Thank you very much for being here. It is a great honor for me and, I am sure, the other members of Congress to have you here today. Thank you.

Dr. Stiglitz. Thank you. First, I agree very much that we have in effect a double standard. It is absolutely clear that we have a double standard. The only question is, is there justification for that double standard? The only justification would be that there was some necessary economic advantage from these too-big-to-fail institutions. This could be, for example, strong evidence that economies of scale by larger banks are more efficient, or that economies of scope bringing all these activities into one institution, are so great to overcome the disadvantages of the risk of being too big to manage that are imposed on the taxpayers. It has become very clear that a lot of the banks can't manage themselves.

Looking at the evidence, it seems overwhelmingly clear that the disadvantages outweigh the advantages. If you look at that financial system as a whole for the United States, we have some really strong institutions. There are venture capital firms that finance our dynamic parts, not only in Silicon Valley, but also in various parts of our country. However, the strong institutions aren't the too-big-to-fail institutions; they are the small institutions such as local and community banks that are providing credit to new enterprises and providing capital to small- and medium-sized enterprises. It worries me that beginning with the reforms back in the nineties, like the repeal of Glass-Steagall, we are moving away from a financial system that provides these basic services on which the dynamics of American capitalism depends and moving into a system where all the resources are going into a financial system that is dysfunctional. That financial system, the big banks and those other parts, led al Qaeda to capital in the way that it should not have gone and didn't make our economy more productive. They really demonstrated a lack of ability to allocate capital and manage risk.

And so I would strongly endorse Dr. Johnson's perspective that we need to take even a stronger view on antitrust. The presumption should be that they should be broken up unless a compelling case can be made not to do that. I can say I see no evidence against breaking them up. I think that this kind of threat that is constantly put forward, that if we do so, we won't be able to compete on a global level, is just nonsense.

You have to ask the question, so what if we lost a little bit in these too-big-to-fail institutions? What we would gain is enormous. From the point of view of taxpayers, the price we have paid for those institutions, illustrated by the numbers that Dr. Johnson gave, make it clear that our society did not gain anything commensurate with the benefits that these larger institutions gained.

Chair Maloney. Dr. Johnson and Mr. Hoenig would you like to comment?

Dr. Johnson. If I could just add two points. I agree completely with what Professor Stiglitz said. There are no compelling advantages to size. That is quite evident. And the disadvantages are dramatic.

Let me make two supporting points. First is in Europe. They have tried—they have gone much further than we have in terms of too big to fail. The Royal Bank of Scotland, for example, in the U.K. had a balance sheet, at its peak, of two times U.K. GDP, not 20 percent, 200 percent and that is not an exception.

If you look at Deutsche Bank in Germany, you look at UBS in Switzerland, you see a similar kind of phenomenon. That is obviously crazy. Now, perhaps they will survive. They are willing to nationalize. It is a huge fiscal cost they are taking on, by the way. Does this give them any kind of competitive advantage in the global economy right now? No, it doesn't. Extricating themselves from that is the major reason why Europe, I think, is going to struggle to recover and they will recover slower than the United States in my estimation.

The second point is just to back up Professor Stiglitz on this risk-taking which is a key part of the U.S. economy. I am a professor of entrepreneurship at MIT. I spend most of my time interacting with entrepreneurs, would-be entrepreneurs, venture capitalists. And these people are absolutely livid at the way large banks have been run. Their point is that they, the risk-takers, are being hampered and they are going to face much bigger tax bills because of the incompetence, mismanagement and hubris of big finance.

I think that the one piece I would emphasize that you need is securities firms that are able to take companies public, but there the key should be a return to an older model in which firms put their own capital at stake, preferably their partner's capital. So it is your money on the line. And if you back an issue and it is a bad issue, you lose your money, not someone else's money—not, you know, some grandma and widows' and orphans' money—your own personal capital. And we can do that.

And venture capital is exactly the perfect model for how to do this. Equity finance, the partners have got money in, long-term investors put money in and individuals' reputations are on the line. That is what we should go for as the risk-taking part of our economy. And the financial transactions part should be run along the public utility lines that Professor Stiglitz has outlined earlier.

Chair Maloney. Mr. Hoenig.

Mr. Hoenig. Thank you. On the question of double standard, there is no question that there is a double standard, that you have in institutions of smaller size—I will give two examples in our region. One had a liquidity crisis, still had some capital but could not fund itself. It was taken over. It was closed in the sense of all the

stockholders lost their money. There were some assets sold and we went on.

In another instance they could not find a buyer. The FDIC took it over to systemically liquidate it in an orderly fashion. That is not being done with the other institutions. And what I have suggested is there is a way even under current circumstances, although cumbersome, that we, in fact, do take it over in terms of the negotiated transaction where you can, against losses that have occurred or would occur, wipe out the stockholders and then continue to run and then reprivatize those institutions. That would make the outcomes equitable for all, which they are not now.

On the question of this competitive issue, I would note that when we eliminated Glass-Steagall, I and others raised concern that it would provide a mechanism under the idea that we had to be more competitive globally, that these institutions would grow in size and would, in fact, despite all the protestations, become too big to fail. And that is exactly what they have done. We have tried that model and that model has not worked. So it doesn't give us a competitive edge. It puts us in jeopardy, and I think that is where we need to focus our attention.

Chair Maloney. Thank you very much. And Ranking Member, Senator Brownback.

Senator Brownback. Thank you very much, Ms. Chairman. And thank you for this panel. Again, I really appreciated the comments people have made.

Dr. Hoenig, you have basically said we need to allow a means for allowing big institutions to fail and a system where you could do that. I read in your speech you gave recently that if the four largest bank holding companies each had more than \$1 trillion in assets and they account for half of the banking industry's assets—I mean just huge concentration for now—of those four, basically then you are talking about, I guess, probably at least two of them would be dismembered and moving out. I don't know the inside numbers on these things. I hope somebody around the government does. But is that—is that what I am hearing you say specifically?

Mr. Hoenig. Well, I won't say how many of the four. But I do say that if any of the four are unable to have sufficient capital to manage their circumstance, and if they do need more capital to make sure that they remain solvent, then the government should take a senior position; and that any losses that have occurred, or would still occur, should be taken against the stockholders so they feel the loss before any of the taxpayers' money is used.

Senator Brownback. Basically, I mean, you are saying we should treat them the same way we do banks across the rest of the country. And we have a system and we have done it before in Continental Illinois, which had a similar very large position in the overall financial sector at a different time.

Mr. Hoenig. Yes. I am saying they should be treated the same for the benefit of the economy. I mean, an economy works when it is allowed to run efficiently; and that is, institutions that do not manage well fail, may be broken up by just the fact of the market working. And then we move on, and the economy is healthier as a result.

Senator Brownback. And you have been a bank regulator. You have been through all of this. You have seen this happen now a couple of cycles in your professional career, whether it was through the thrifts or the Continental Illinois or much of the crisis we had in the Midwest in the eighties. This is not an unknown cycle.

Mr. Hoenig. This is not—this is not a cycle that is—this is a cycle that has been experienced before, only now the sizes are greater because of the growth in these largest institutions.

Senator Brownback. The rub for me—I am sorry to cut you off, but time is limited—the rub is, people say that will take the economy on down further, and that you would get into a spot where you cannot recover in any near-term time frame, if you do that with one of these four entities that have a trillion in assets or more.

Mr. Hoenig. I don't buy that for the following reason: that if you address these issues and deal with them, then I think the economy—it takes a certain degree of the uncertainty out of the economy, so people know where things stand.

One of the things that happened in this lost decade of Japan that people talk about is they didn't step up to the problem and deal with it, and it went on. People didn't know where the problems were. They didn't deal with the banks, and things spiraled down. That is what we risk here unless we take on and address these issues and allow ourselves clarity, and then the economy can move forward.

Senator Brownback. Dr. Johnson, do you agree with Dr. Hoenig on this?

Dr. Johnson. I absolutely agree. And I think the example of Japan is the right one. There is, I think, sometimes a human instinct to draw back from dramatic actions. That is the dangerous, expensive thing, but that is not the case for all our—all the things we encounter in life. And it is certainly not the case with banking. And I think Japan in the 1990s is fascinating because—

Senator Brownback. I am going to cut you off because I am going to get cut off. Dr. Stiglitz, do you agree with Dr. Hoenig?

Dr. Stiglitz. Yes, absolutely. There are risks with any strategy, but you have to balance those risks.

Senator Brownback. You don't believe this will tank further the United States economy at this point in time?

Dr. Stiglitz. Absolutely not.

Senator Brownback. Do you believe it is the route out for the U.S. economy at this point in time?

Dr. Stiglitz. That is right. Absolutely. The point is, there is complete confusion between too-big-to-fail and too big to be financially restructured. The issues of conservatorship that Mr. Hoenig mentioned are a form of financial restructuringship, it has been done in other countries, such as Sweden.

Senator Brownback. And we can do this and the ATM still works when people step up to the ATM, or the credit card still functions across the society?

Dr. Stiglitz. They are likely to work better than under our current system. I will share a joke. One of my friends said that when he went into one of the big banks and put in his ATM card and it said insufficient funds. He didn't know whether it was his ac-

count or the bank. I think that is the kind of uncertainty that we have right now.

Senator Brownback. Let me back up to Dr. Hoenig. Thank you, Chairman, for giving me more time.

What if it is two of the four that we have to go through this with and the government has to go in and basically do what we do with any other bank, which is you take it over, you clean it up, you peel off assets, you try to sell it. Or if you can't sell it, you sell pieces. Or if you can't do that, it is closed. I mean, you are talking about now \$2 trillion in assets that is going to be being run through a system that is normally used to dealing with banks a hundredth that size.

Mr. Hoenig. Senator, if the loss is there, the loss is there. What I am suggesting is you take it into a conservatorship and much of the—many, most of the employees would continue to work there with oversight from the FDIC, or the party, and with the new management perhaps, and probably new directors, that then adds the capital because the losses are there. You have to address that. So what I am saying is, here is a systematic way to do that.

Chair Maloney. Will the gentleman yield?

Senator Brownback. Yes.

Chair Maloney. How long would you see them in a conservatorship? Would you see it for 5 days, 2 weeks, a year? How long would you see it?

Mr. Hoenig. It probably would be years, as Continental was when it was taken over. It was managed. They broke it into a bad bank so they could liquidate the assets, left the franchise, the good bank, what they called, where it had a franchise to build up, and then that allowed them—because it takes a different kind of mentality to liquidate an institution than to build it up. So they had it separated—with oversight from the FDIC. And they ran it for some years. And then they reprivatized it and made—actually sold it above the stock cost.

Chair Maloney. I yield back.

Senator Brownback. Thank you very much. And thank you for the sudden—I just want to make sure that we are on this point, that this isn't further disruption in a weakened economy that we already have. And you believe, and all of you believe and know that this is actually the route out. And I believe you even cite to the Swedish example and the lost decade in Japan as the way not to go with this.

A final quick question if I—I thought I had 28—all right. I thought I had 27 seconds here. This is—do you support the commission idea that Dr. Burgess put forward, Dr. Stiglitz? Do you think it is a good idea? Just a real yes or no.

Dr. Stiglitz. Yes. I think we need to have a comprehensive review of the economic—

Senator Brownback. Dr. Johnson, do you—

Dr. Stiglitz [continuing]. Politics that led to it.

Dr. Johnson. I think it is essential.

Senator Brownback. Sorry. Thank you for your forbearance.

Chair Maloney. Thank you so much. These are critical issues and we have very important panelists. We are going to be very le-

nient on time so we can get a cross-section of all the panelists' responses to the issues. Mr. Cummings is recognized.

Representative Cummings. Thank you very much. Gentlemen, I want to thank you for your outstanding testimony. And the thing that I guess I am concerned about is we are putting all this money in these banks and where the rubber meets the road is on my street. And a lot of people can't get loans. And one of the things that also concerns me is that when we do these measuring—we use these measuring tools as to whether the economy is going in the right direction, it seems like we base it upon what is happening on Wall Street. And that is all well and good, but the people on my block, they are concerned about the foreclosure rate, they are concerned about the job losses, they are concerned about consumer confidence. And sometimes I wonder whether gearing so much towards the investor class puts aside the pain and the hurt that is going on in the neighborhoods. And so recent reports indicate that even the largest recipients of TARP aid have not increased and in some instances have decreased their lending. Should more be done to require that banks increase lending and it is also interesting that even these banks that just showed enormous profit use every excuse under the sun to say that it is really not profit, that it is something else, while people are losing their houses and credit cards are becoming more expensive to use and things of that nature.

I just want your comments on that. Dr. Stiglitz?

Dr. Stiglitz. First, going back to the conservatorship model, one of the key points is that with new management and new incentives, we could try to induce financial institutions to work in ways that are more consistent with the national objective. You are absolutely right that what is good for Wall Street may not be good for the rest of the country. They are focusing on very narrow objectives: the survival of the bank, the maximization of bonuses, and the maximization of their dividends and the share price.

Representative Cummings. And these are people that have already been paid and people who lost money and took my constituents' savings that they will never get back.

Dr. Stiglitz. Exactly. Now, one of the important questions is, do we want to throw good money after bad, down the drain, which is what we have been doing, or do we want to have the money that the public is spending going forward? Part of going forward is to say, okay, there may be some risks associated with new business lending, because we don't know how long this economic downturn is going to last. We could come up with creative ways of sharing the risk of lending in order to make sure that there are incentives for good lending practices and that the banks understand the loans are not their responsibility but the government's responsibility, if we have a recession that lasts for 3 years. We can do a better job of risk sharing that will enable the banks to be comfortable about restarting lending. Right now it is perfectly understandable why the banks aren't doing that, because what they see is a recession going as long as the eye can see, with nothing effective being done to deal with the underlying problems of our financial system. Why would you want to lend? We haven't even done what the U.K. did when they took over their banks. Admittedly, they have a much

worse problem, because they let their banks grow even more too big to fail. However, when the U.K. gave money to their banks, they insisted on having more control, and they tried to create frameworks that would provide organizational structures to induce more lending. Now, even with these steps it has been very difficult, but the point is they were very aware of the need to get more lending, and it wasn't just lecturing the banks. They actually tried to create institutional structures to motivate that greater lending.

We have said we don't want to have any control, that we are going to give banks money and don't even want to trace where the money has gone. We said, we just trust you. If you want to spend those dollars that we are giving you as dividends and bonuses, we trust that you are going to use the money the right way. We know now that is the wrong answer.

Representative Cummings. Dr. Johnson.

Dr. Johnson. We almost have the worst of all worlds. As Dr. Hoenig said, there is massive uncertainty about the future and the banks are very uncertain about what is essential investment. As Professor Stiglitz said, these banks have got distorted incentives. And putting more money in this top fashion does nothing to address those problems. That is why I think all three of us are calling for a more comprehensive systemwide approach, do it now, do it in a somewhat more dramatic fashion but get beyond this.

And then I think—and also I would emphasize breaking up the banks. If you had smaller, more competitive banks, they are going to be looking for people to lend to where the lending makes sense. I would add, though, two provisos to this. First of all, I think your issues around housing are absolutely critical and need to be addressed. And one of the problems we are going to see more and more, as people lose their jobs, even if the Fed is able to bring down mortgage rates, people will not be able refinance because they won't qualify for the refinancing. So they are going to be hammered because they lost their job and they are going to be stuck with this high interest rate, so they will lose the house as well as losing the job. That is a disaster. But that has to be addressed through housing policy, and I think some of the administration's moves in this direction are good. I would actually support doing more in that direction so people who have been——

Representative Cummings. Like what? Like what? You said more in that direction. Did you have any——

Dr. Johnson. I think you have to facilitate refinancing of mortgages. People who have lost their homes are not going to qualify for new mortgages under existing rules. But that is part of what is going to drive them into bankruptcy and they are going to lose their homes. So we have to look at the ways in which those—refinancing is possible based on your income stream and the probability you are going to get rehired.

It is a complicated issue. It is an issue of support for Main Street versus Wall Street, which I think is your other point. And in addition, I would stress there is going to be deleveraging. We became very highly indebted as a society. And we know there was excessive credit creation because of the incentives of the banks to take on these massive risks. So if we could move to a system I think the three of us would more broadly support, that is likely to be a sys-

tem with less lending and less credit. Let us be honest, that would also come with some pain. That is part of the adjustment process and unfortunately it is coming out of the system we have created.

Representative Cummings. Thank you, Madam Chair. I see I have run out of time.

Chair Maloney. Thank you. Congressman Burgess.

Representative Burgess. Thank you. Dr. Johnson, just briefly, I want to stay on that last point on the mortgage lending HOPE for Homeowners was passed last fall. It apparently was misnamed. It should have been singular homeowner, because I don't think we have helped very many people. So it just seems that when we at this end try to get into that business we don't really do anyone any favors. I am concerned, having lived through the S&L meltdown in the late 1980s in the State of Texas, that as it seemed like we were beginning to get past that, it was almost impossible to get credit. And I am thinking back in terms of running a practice and being a small businessman. Many of our banks were taken over by the—I think it was the North Carolina National Bank that had the unfortunate initials that also read “no cash for nobody.” And we just couldn't get loans.

So looking forward, as we emerge from this, how do you keep that credit from being so tight in an environment where everyone is worried, the borrower and the lender both?

Dr. Johnson. It is obviously going to be a problem. We are clearly facing a credit contraction. There is a big recession and we have not yet turned the corner. I am not trying to sugar coat it for you at all. But I think if you had a more competitive banking system, it is the smaller players—for example, North Carolina, South Carolina has some very strong, smaller banks, regional banks, or I guess you can call them local banks, community banks. The diversity of size in the American bank system is at this point an advantage. I am not saying those banks are without their own risks. They do have exposure to commercial real estate, for example, and I don't think we have necessarily turned the corner there. But I think one big advantage of breaking up the larger players is that it is going to even the playing field. And if you talk to the community bankers, they complain a lot and with good reason about the behavior of the biggest banks.

Representative Burgess. A lot. We will stipulate a lot.

Dr. Johnson. I think much of it is with good reason. And looking back, I think you can see that they were right in some points that previously were—maybe we just thought were contentious. So moving towards a more competitive banking system is going to help address exactly your issue. If there are good loans to be made—and this also addresses Professor Stiglitz's utility model—that we are not looking for the bank system to take on outrageous risks. We are looking for them to look at credit scores, to make a sensible assessment of your income prospects and to land on that basis, make banking boring. Boring banks would lend to the kinds of small businesses that you are talking about.

Mr. Hoenig. Can I just add one comment? I want to emphasize for both that it is important—we are in a recession and people are going to pull back, both the largest lender who is trying to conserve capital, but I would also remind you there are over 7,000 commu-

nity and regional banks across the United States. And they are, I would say, willing to make loans, but they are also looking at this recession and being more cautious.

The other part of this, for the consumer, the person on the block, one of the things we found in our working with our different communities around our region is that there is a real absence of knowledge on that consumer's part. And one of the biggest steps I have seen is some of the work that these counseling, HOPE Now and so forth, have done to educate and then to work with them to get them through this. That is proving as helpful as anything else we have done, and I think the banking system, the community banking system across the country then will be in a position when confidence begins to be restored and we begin to address these issues around too big to fails and other to provide loans across this country. That is this country's big advantage and that is having banks throughout all these communities able and willing to make loans. That will come back too, I am confident.

Representative Burgess. I would obviously just echo that in the conference calls that I have with my community bankers and credit unions back home. That is exactly the sentiment that I am hearing.

Let me just—I want to go back to what Senator Brownback was talking about and the concept of—that doing some of these things that we are talking about, the antitrust and the breakups of large institutions and not cause further disruption of a weakened economy, just temporarily go—let us go back 6 months, and I did not support the TARP legislation when it came through either time in the House of Representatives but—and I wasn't privy to any of the conversations that went on in the White House, but I can just imagine being faced with the staggering losses that they were looking at. Was this an unreasonable assumption that they made, that the TARP funding was necessary to put in place to keep the system from entirely collapsing? Or should, in fact, we have just let these institutions fail and continue to fail and things would have worked themselves out? Was the TARP decision an unreasonable decision that was made at the time? I did not vote for it, but looking back at it I have to wonder if it wasn't the right decision at that time.

Dr. Stiglitz. Let me say that there were a lot of problems with the structure of TARP, and I will come to that in a second. I think that at least some of the people that were pushing TARP originally were absorbed in a fiction. They thought that if you just announced that you were giving a lot of money, confidence would stabilize, prices would be restored, and we wouldn't actually have to spend the money. I thought that was a total fiction. We had a bubble, and many of us saw the bubble coming. The bubble had broken, the losses were there, and the question was who was going to bear the losses and how do we restructure our financial system. That is where I thought our intentions should be.

Representative Burgess. I don't mean to interrupt. Let me ask you, then, so at that point would it have been better to let those banks fail and go through the process that was gone through with the savings and loan melt down in the 1980s?

Dr. Stiglitz. Yes. When I say fail, remember what I said in my testimony which is we have to distinguish between too big to fail

and too big to restructure. They should have been restructured in the kind of conservatorship that Mr. Hoenig talked about. That is where we should have allocated money, because with TARP it will likely be necessary to put in more money. If the burden had been placed on the bondholders, the amount that the Federal Government would have needed to put in could have been much less, and therefore the Federal Government's balance sheet in 10 years time would be much better.

Representative Burgess. If some incorrect assumptions were made last fall, are we at risk now of institutionalizing those incorrect assumptions as we go forward and continue to put money into this system without allowing those banks to actually seek their new level?

Dr. Stiglitz. I think we are continuing to lose more and more money. We are distorting the structure, and we are not taking this opportunity to begin to think about what kind of a financial system we want to create. That was the beginning of my testimony. I think that is absolutely right, that we really now ought to draw the line in saying where do we want to go from here and are we reinforcing a failed system, rather than creating a new system at very great cost to our future.

Representative Burgess. So it is not too late to draw that line?

Dr. Stiglitz. No, I made that very clear. It is not too late to draw the line, although it would have been better if we had done it earlier.

Chair Maloney. The gentleman's time has expired. Senator Risch.

Senator Risch. Mr. Johnson, the takeaway I had from your testimony is compared to the European banks we are actually doing pretty good here as far as the size of the banks. Your comments?

Dr. Johnson. We are doing badly, but we are doing better than the Europeans. That is exactly my assessment.

Senator Risch. I would like to hear the answer from Mr. Johnson and Mr. Hoenig to the Congressman's last question about the TARP. Was it a good idea or a bad idea in summary? Dr. Johnson?

Dr. Johnson. I think you had to come in to support the bank system. What we should have done is something much closer to what Dr. Hoenig is now proposing, with recapitalization, with conservatorship where appropriate with additional private capital where that could be raised, and we would now be 6 months further through the process of turning the economy around. Actually, I think we should have used the same measures that Dr. Hoenig was talking about back when Bear Stearns failed. Then we would be a year through the process. And it is now a matter of public record that the International Monetary Fund, when I was working there, did make those suggestions to the U.S. Treasury. The U.S. Treasury, of course, saw fit to proceed otherwise.

Senator Risch. Of course when Bear Stearns failed, things were not bad enough that politically anybody could have gotten away with what you are suggesting.

Dr. Johnson. But that is exactly—perhaps that is true and that is the line being taken by former Treasury officials. I recognize that. But on the other hand, that was the perfect time in which to do this kind of restructuring and reorganization. I think there was

a persistent misunderstanding, as Dr. Stiglitz has emphasized, that the Treasury kept saying it is just a liquidity problem, we will be able to get through it through liquidity measures. It is not a liquidity problem. It has been recognized by outsiders at the G-10 level of international officials—I can tell you, many people were telling the United States you are not looking at—for 2 years, my personal experience is they were telling the United States at the highest level, this is not a liquidity problem you are facing, it is a solvency problem. Solvency problems are addressed very differently. They are addressed using the kind of approach that Dr. Hoenig has laid out for you.

Senator Risch. I understand what you are saying, but of course none of those people have to go out and get elected either.

Mr. Hoenig, your comments, please.

Mr. Hoenig. I would agree that on Bear Stearns in hindsight—but that passed. But I think with the TARP and the amount of money that was being discussed and eventually passed, my comment was at that point, you think about how you are going to create a system or a process or a structure around that so that you allocate those funds most effectively. That was the opportunity to do that. And I think it is an opportunity that we should not pass by again.

Senator Risch. I appreciate your comments, but don't we have to give just a little bit of slack to those guys in the fact that they had a real gun to their head at the time they were trying to structure this mammoth \$700 billion we were talking about? Is that a fair statement?

Mr. Hoenig. I think that that is correct. I think it was very, very stressful and we had a lot at risk. But at the same time, think of the amount of money that we had—we were talking about. We need—whenever you are going to do something like that, you need to have the—and it wasn't like we didn't have experiences like Continental, like the Swedish model. That is all I am saying. I don't dispute the fact that you had to have—that losses were there and you had to address those losses. But you wanted to do it in a systematic fashion and also as you work through it a way that would allow you to have these largest institutions in effect fail in terms of the stockholders taking the loss as part of the process.

Senator Risch. Thank you. Thank you, Madam Chair.

Chair Maloney. Thank you very much. Thank you. I would like to ask all of the panelists, in regulating large financial institutions, should we have a list of systemically significant institutions, a systemic regulator or should we have rules that apply to all institutions that get tougher with more intense oversight as institutions get bigger and more interconnected? And related to this, where should responsibility for regulation lie? Many think with the Fed. Could all of you comment on this? We will go down the line, beginning with Dr. Stiglitz.

Dr. Stiglitz. I think it is very clear the second approach is what is required. The fact is we can't tell ex ante who is going to be systemically significant. No one would have classified AIG as such until afterwards. However, if we have a comprehensive framework that includes all institutions, with more intensive oversight of those that are clearly systemically significant while also having

oversight and regulation of everything, including in all of the areas that I talked about in my testimony, including incentive structures and leverage, then we are in a much better position to see what is going on and to deal with the problems before it is too late.

One of the problems is, in a dynamic economy, somebody who is not systemically significant can within a year or 2 become systemically significant. AIG was not systemically significant 4 or 5 years ago. The operations of one row group in London made it systemically significant. So you have to have comprehensive regulations. In terms of who should do it, I know Mr. Hoenig may disagree with me on this, but I don't think the Fed did a wonderful job in the run-up to this crisis. I think it failed to use the regulatory powers that it had. I put major responsibility on the investment banks, for excessive risk taking in the securities markets, but the Fed had an oversight role that it didn't perform. The conclusion that I reach from this is that we need to have an array of institutions. One of them is the Financial Products Safety Commission, which should not be in the Fed. It needs to be an independent organization with a greater focus on the concerns of those who might lose money if things go badly, as opposed to those who are making money when things are going well. I think that is a basic principle. We also need to have a financial stability commission with oversight of the system as a whole, in terms of the stability of the whole economic system, and I think that needs to be independent of the Fed. The Fed is focused on the banking system, and our modern financial system includes a lot of things that are outside the banking system explicitly, such as insurance and so forth.

Chair Maloney. Dr. Johnson and Mr. Hoenig, in other words, you do not believe that a systemic regulator is enough, you should regulate everything across the board?

Dr. Stiglitz. That is right. The Fed is an important component focusing on the banking system. They all need to talk to each other. It is absolutely essential to have a framework in which there is coordination. You can't have double standards: regulation should be according to what they do, not what they call themselves. That is an important principle. But there are advantages of knowing about banking, which is what the Fed does, and advantages of knowing about insurance, for which we need an insurance regulator. You need to have something that comprehensively includes everything.

A couple of countries have tried to have this approach, combining both comprehensiveness and specialization.

Chair Maloney. Any other comments from the panelists?

Mr. Hoenig. Let me just say a couple of things. To answer your first kind of in reverse order, no one did a particularly stellar job in supervising these institutions. And that is the Comptroller, the FDIC, SEC or the Federal Reserve. And part of that is, if you think about it, we changed—we had an environment where deregulation was the watchword. And you went forward with that. You had these very large institutions, and we in a sense allowed ourselves to think that sophisticated methods of financial transaction was a substitute for fundamental principles. And so that is I think one of the areas we need to focus on.

As far as financial stability regulator, the Federal Reserve in one sense is, if we have the financial stability, we have responsibility for macro policy, the financial industry and so forth. I am less enamored with the idea of a financial stability regulator for the very reason that these institutions got too big. They couldn't manage the breadth of all these activities. I don't see where you are going to get the expertise, that one institution is going to be able to tie all this together. It is based upon having people understand the business lines that they are involved with. As to how you regulate, I think whether you are the largest or the smallest, there are fundamental principles that we need to—if we do a commission—need to look at and reestablish this standard. One is what is the leverage that you should have. If you have an institution that has a 30 to 1 leverage ratio, assets to equity, it is going to have more risk and be more subject to failure than the one that has 10. So that is where you spend your resources. If you have underwriting standards that allow for loan to value ratios to be over 100 percent, that is where you ought to be spending your attention and they should be paying more for—they should have more capital and they should be required to have more capital.

We need to establish very clear standards, financial standards, for these firms so that we do not see this repeated. And in the good times, which will return, we don't start shaving those back as we try and leverage up and make more income.

And finally, the process should be look at the financial strength and then there needs to be a clear resolution process so that if they do fail, they are resolved.

Chair Maloney. Thank you. My time has expired. Senator Brownback.

Senator Brownback. Thank you very much, Chairwoman. I won't be so long.

Dr. Johnson, do we still have a solvency problem as a nation? I think I know the obvious answer to that, but I want to hear yours?

Dr. Johnson. You are asking about consumers or the government level or the banking—

Senator Brownback. I am talking about the total debt structure of the United States. You said—we were telling you—we were saying to the international bodies that we just have a liquidity problem and the international bodies were saying to us, no, you have a solvency problem. And I want to know your thoughts, whether we still have that solvency problem from the statements and the factual setting that they were originally said.

Dr. Johnson. Those statements were specifically about the banking system having suffered losses. So they had bad loans rather—and the loans needed to be written down, so they had assets that were below the value of their liabilities. That is a solvency problem for the banking system, not a liquidity problem, which was the position—

Senator Brownback. Do you believe we still have a solvency problem today?

Dr. Johnson. Yes, absolutely. And that is what the numbers—the IMF numbers which were produced by a different team than the one I directed when I was at the IMF have been very reliable throughout this situation. You take the numbers released today

and apply them to the United States. It is available in their detailed breakdown. And you compare that with the amount of capital that has been raised. We are in better shape than the Europeans, it is true, but we are not in good shape. There is still a solvency problem in the U.S. banking system, particularly presumably among the larger banks. And this is where Mr. Hoenig's suggestions I think line up absolutely with what the IMF would suggest to the United States.

Senator Brownback. And this is even with all the money that the Federal Government has put into these big banks, we still have a solvency problem?

Dr. Johnson. Yes, that is correct. That money has addressed part of the problem, but there is still a solvency gap that these banks are facing. And I think the government strategy is one of forbearance. They are hoping that the economy will recover, that the banks will make sufficient money to close that gap. And it did work in very different circumstances in the early 1980s for some banks. I don't think it is appropriate for today's circumstances. I don't think it is working, and I don't think it is going to work.

Senator Brownback. Dr. Hoenig, you are a President of the Federal Reserve, a man in good standing. You have done that for a number of years. You must talk to your colleagues at other Federal Reserve banks. Do they agree with your prescription here?

Mr. Hoenig. Some do and some are, I think, more of less, trying to bear through this. So it varies. I think that is the advantage of having 12, you get different opinions to come forward to the solution. But not unanimous.

Senator Brownback. Thank you. Thank you, Madam Chair.

Chair Maloney. Congressman Cummings.

Representative Cummings. Yes. Dr. Stiglitz, you have written about the shortcomings of TARP and you also commented that a particular mindset among Treasury officials led to the choice of this policy. Do you think that we as a nation have simply been unable to change our fundamental paradigms of the market and therefore are infusing funds rather than requiring fundamental changes or compelling shareholders to accept losses they would have had to incur had the government not intervened in the way they have?

Dr. Stiglitz. I think unfortunately it is because so much of this was controlled by people who did not approach it from a mindset of the every part of financial markets, because the financial markets are more comprehensive. Community banks are also part of the financial markets. A very narrow part of the financial markets were the big banks, and they tried to shape the view that there is no alternative other than giving them massive amounts of money, because it would be too risky to go the conservatorship approach. Politically, had either the Bush administration or the Obama administration come to the American people and said, here is a model that has worked in Sweden, and in America over and over again, which is actually the less risky model because it is tried and true, I think Americans would have supported that more than they have the TARP, which had a lot more political risk and hasn't worked very well.

Representative Cummings. I want you all to comment on this question. Dr. Stiglitz, you are were reported as commenting in re-

cent days that this new public-private partnership plan will enrich investors while requiring taxpayers to bear losses. You previously have said this is tantamount to robbery of the American people.

Can you elaborate on your comments and explain what level of losses you think taxpayers will bear from the implementation of the public-private partnership program? And I am sure you may be familiar with the IG's opinion that came out at midnight last night, Mr. Barofsky, where he commented on—he had some criticism of the plan. But would you all comment, please? We will start with you and then go.

Dr. Stiglitz. Let me try to be fairly brief. It is a very badly designed program. It was mentioned in the introductory remarks that this is a very peculiar partnership where the private sector puts up 8 percent of the money and yet can walk off with 50 percent of the profits, and the taxpayer puts in 92 percent of the money and takes the brunt of the losses. Moreover, because we bear the losses, it leads to perverse incentives that actually may make it more difficult to resolve, for instance, some of the bad mortgages. There is an incentive to delay resolution of mortgages because if there is a chance that things might get better, which hopes, then the banks get to keep the gains. If in the more likely outcome things get worse, the FDIC and the government bear the brunt of the losses. So it actually impedes the resolution of some of the underlying problems in the mortgage market.

Representative Cummings. Dr. Johnson.

Dr. Johnson. I agree completely, but I also think it won't work. I think that both—the banks are already indicating they won't participate because they think it will come with restrictions. They want their bonuses back and they want that compensation right back the way they were before. And I think the government is rightly going to balk at that and so there is a problem there. And the hedge funds and other entities who are supposed to come in and buy even though it is potentially for them a fantastic deal, as Dr. Stiglitz has outlined, again they are not going to want the potential of sensible legitimate restrictions on various things they may and can do down the road.

So I think the scheme is not going to work, in addition to being a bad idea.

Representative Cummings. Mr. Hoenig.

Mr. Hoenig. Yes, I have talked to different parties that would be considering this and there are concerns from both sides. First from the bank side, this assumes that the losses have been taken because if you have toxic assets you have to write them down. If you think somebody is going to buy them at more than they are worth, you are wrong. So you have to take the losses. If that is the case, then the gain to the other side is pretty significant, subsidized by the government. And they are very reluctant because they know if they make substantial gains, we have very strong backlash to that. So it does have issues that I think still have to be worked through if they are going to go forward with this.

Representative Cummings. Thank you, Madam Chair.

Chair Maloney. Congressman Burgess.

Representative Burgess. Thank you. Dr. Stiglitz, you have talked about or written about the revolving door that exists be-

tween Treasury and Wall Street. Does that continue to be a problem? Is that something that should continue to trouble us here in Congress?

Dr. Stiglitz. Yes, very much so. Let me emphasize, it is not just the question of whether there are explicit promises. It is a question of mindset. If you have spent 20 years in one of these big banks, then spend 4 years in Washington and go back and spend another 10 years in one of the big banks, what is your mindset, how is the way you think about the world shaped? We have different people that see the world in different ways, but they see things in this very peculiar, very insulated way. We have seen some outstanding examples of that in this crisis.

There is another problem, which is that it undermines public confidence. When the public sees somebody who has been in one of the big banks join the government and rewrite a law or do these other things, you hope it reflects his best judgment. However, if it comes out to benefit the private party at the cost of the government, there is an undermining of confidence in our democratic political processes. It is made all the worse when there are these magnitudes of, quote, investments, public contributions and campaign contributions. The inference is these guys know how to manage their investments: they invested in government, and they got a high return.

Representative Burgess. Let me ask you a question because on the previous line of questioning, we were talking about, you know, is it too late to draw the line and you said it was not. And to move into a newer system. Do you think the current team that is in place is capable of doing that, of reversing course, drawing that line, and moving into the new regulatory system that you described?

Dr. Stiglitz. I think reform is possible for anybody, but the question is, is it likely. I don't want to make a judgment about that.

Representative Burgess. I guess I don't either. So let me move to Mr. Hoenig and ask you a question. I was really taken with your testimony because again I lived this in the late 1980s in Texas. The savings and loans imploded. Energy prices plummeted. Real estate prices went away all overnight and left all of us in pretty terrible shape. I don't know if it was that way all over the country, but it sure seemed—my world collapsed and collapsed around me. I didn't think the sun would ever shine again. And by doing the right things or what appeared to be the right things at the time, and it was very painful and cost many of us some aspects of our savings and our business, but as a consequence we got through it and then the number of years of prosperity that followed were that was a sustained period of growth that really I never would have expected we can emerge from that crisis and see that type of growth. Now, one of the—I know one of the techniques that was described to us by the former Chairman of the Federal Deposit Insurance Corporation, Bill Isaacs, when he came and talked to our policy committee last fall and he talked about things like the mark-to-market and the net worth certificate and the things that they had done back in the 1980s at the FDIC to get through this, were those tools, were they applicable to the situation last fall or was the problem just simply too large to be handled by that type of activity?

Mr. Hoenig. Let me just start by saying what you described was around the country and our region between 1982 and 1992 I was involved in almost 350 bank failures, each a strategy. All hurt the community. We did get through it. Many of those banks were closed or sold with the shareholders losing all. And in those larger institutions, in that crisis, and the methods that Bill Isaac described to you, they could—they can still work today. And Continental is the best example, where you have—now it is a negotiated transaction, when you know you have an institution that is in dire trouble as Continental was, but it did work. And those things can work today. Yes, the scale is larger, but the process and the techniques I think are applicable.

Representative Burgess. And again my recollection at that time was painful, but then things got better and they got a lot better and they got a lot better for a sustained period of time.

Mr. Hoenig. Correct.

Representative Burgess. I worry about whether or not we are setting the stage for a suppression of that growth that otherwise might follow from this period of deleveraging or recession.

Mr. Hoenig. We have to address the issue so that we can begin the healing process and then begin to grow again.

Chair Maloney. Thank you. Senator Klobuchar.

Senator Klobuchar. Thank you very much, Madam Chair. I have to get used to these things on the House side. There we go. I am sorry I missed your testimony. I have this single Senator thing going in Minnesota. There are a lot of things to do. But I just want to let you know I appreciate this. Sounds like a very interesting discussion, even coming in at the tail end here. My focus is on just a few things.

One is that we have a number of healthy banks in Minnesota, our community banks. U.S. Bank has been doing well. Wells Fargo has a big presence. We have the biggest bank that is returning their TARP money, Twin City Federal. And I wrote a piece for the Washington Post about this, how they were all affected when the stress test announcement first got made in terms of—I likened them to standing in the heartland with their feet firmly planted in the ground with their sensible midwestern brief cases with credit default swaps swirling around them like a cyclone saying Toto, we are not in Kansas anymore. So I appreciate the understanding that there will be differences with the banks.

The second focus I have is on the regulatory piece of this, which is the—how we best go forward in terms of regulating. And I know the administration is really interested in this. And one of the questions I would—just with the different types of regulation we have now with the SEC being a disclosure based system, the Federal Reserve placing a premium on confidentiality, what is the best way to try to regulate these financial institutions when you have the regulations set up to be separate lanes and they are all crossing back and forth like a superhighway?

Anyone can take it if you would like.

Mr. Hoenig. Let me start because it is an area I am familiar with. In my testimony, Senator, I said let us diagnose this correctly and the issue of the Comptroller of the Currency or the SEC with its mission and so forth, and starting with that is having been bro-

ken is not the place to start. The place to start is what should be the standards of behavior in terms of financial principles and rules that we are going to hold the institution accountable for adhering to and hold the regulatory authority for enforcing. So that we—if we have leverage standards in the good times, we don't say well we don't need those anymore, they are firm, they are going to go through. If we have underwriting standards and we expect you to have loan-to-value ratios that make sense, we expect when we see this material that there is a cash flow that actually services this loan, that we would hold you accountable for having that and hold the regulator accountable for enforcing that and if it is a disclosure issue, then that is the purview of the SEC, that in fact they do disclose appropriately. That where we need to really I think focus going forward to reestablish those—you know, it is interesting, those fundamental principle, we talk about the new world we are in, but those fundamental principles are as applicable in the 21st century as they were in the 19th. They involve prudence and standards that we have to abide by, diversification and so forth. And that is what happens.

Senator Klobuchar. Dr. Johnson.

Dr. Johnson. I have been arguing I think exactly the point that you made at the beginning, which is it is a good thing Minnesota didn't have just a few of these massive banks running the banking system. Having a more diverse system, having a more competitive system is absolutely essential. I am in favor of better regulation of behavior, as Dr. Hoenig laid out, but I am afraid that we have seen time and again, all our regulators, particularly around big finance, get captured. Not in any corrupt type of way, but in a mindset way. They come to believe that these clever innovations, the new derivatives or the way mortgage lending is being handled is somehow better and different. And if you think what we have in this country is bad, go look at Europe where they have big integrated regulators full of sophisticated, smart people who completely fell for this in a much bigger scale.

So I think having a super regulator is fine, but you have to break up the big banks. And I am not naive. I, of course, understand that the community banks can get together and subvert a regulator. Okay? You have to be aware of this problem always. But having four or six or eight titans of finance is really asking for trouble. And assuming that the regulator will be able to control their behavior I think really doesn't fit with the historical record in this country or elsewhere.

Senator Klobuchar. Dr. Stiglitz.

Dr. Stiglitz. I agree with everything that has been said so far, but I would like to add a few other things. First, transparency disclosure is absolutely essential, but it is not enough. You have to go well beyond that.

Secondly, any regulatory approach has to be comprehensive, because otherwise bad behaviors will always result from holes in the system. You need to have detailed institutional knowledge, and that is why you need to have somebody who knows securities markets and banking systems. Our financial system is very clever, and it will find the hole, the weakest part of that system. You have to

have both a comprehensive approach, and very institutionally based approaches.

Thirdly, you have to include not only restrictions on behavior, like excess leverage where there ought to be cyclically adjusted standards, but you also have to affect incentives. You can't allow core banking institutions to have people with incentives to have excessively short sighted behavior and excessive risk taking. We have seen what economists would have predicted come about. You know, I was actually worried for a while that things were not as bad as they should have been, but now economic theory has been validated.

The issue of regulatory capture is absolutely essential, and we have seen it over and over again. In our regulatory structures we have to be sensitive to it. For instance, one of the important innovations that we ought to be thinking about is the Financial Products Safety Commission where you have somebody looking at the financial products to see if they are safe, in what dosage, and for whom, but outside of a framework which can be influenced by the investment community. It has to be related to those who will lose if you make a mistake, such as the union or the workers who are more likely to suffer. You have to move it away from Washington or from New York. You need to think about how our system has failed and try to recognize that.

Senator Klobuchar. Because you would argue that some of the failure is consumers just not being protected from these products or not understanding what they are or what their risks are?

Dr. Stiglitz. Exactly. Now, some other countries have done a far better job than we have, and we ought to learn from that. For instance, when one central banker in another country was approached by American financial institutions saying we want to sell our derivatives (we put a lot of pressure on some of these countries) the central banker asked, can you explain what these things are and what they are going to do? The reply was no, we can't really explain it. The banker said, you can't sell it in our markets if you can't explain it.

Senator Klobuchar. That is a simple test. All right. Thank you very much.

Chair Maloney. The gentlelady's time has expired.

Dr. Johnson and Dr. Hoenig, do you likewise support the Financial Products Safety Commission idea?

Mr. Hoenig. I think it is an interesting idea in terms of consumer protection, yeah. I think it is worth exploring.

Chair Maloney. Then Dr. Johnson.

Dr. Johnson. I think it is very sensible, and I particularly like the point about locating this commission away from New York, away from the big financial centers, and away from Washington. That works for me, too.

Chair Maloney. I think a lot of financial products should be in New York City since I represent it. But I would like to note that my distinguished colleague, Brad Miller, is sitting here in the front row and he has introduced the Financial Products Safety Commission legislation, and I welcome him to the hearing and invite you to join the dais if you would like, Brad.

I would like to go back to the Treasury, to the idea of how we handle these complex financial institutions that are systemically important but are on the verge of being insolvent. And Treasury has submitted proposed legislation that would give the FDIC authority to unwind these institutions similar to the authority FDIC has for depository institutions. I would like to ask the panelists, if you have reviewed this legislation, do you have comments on it either now or later in writing for the committee members? And do you think it is more complicated and more difficult than what we have with the authority now with the FDIC? And could you just comment on it?

And likewise, Dr. Stiglitz, you have mentioned Sweden several times and often it comes up in conversation as we are discussing this in the Financial Services Committee and other committees, and they say that Sweden is different, it is not as large a country as ours, their financial institutions are not as universal or as complex as those in the United States and that the comparison is not a good one, that we can't really compare the financial institutions of the U.S. with Sweden because of the complexity of our financial institutions and the universal institutions that we have.

So I invite all of the panelists, Dr. Johnson, Mr. Hoenig and Dr. Stiglitz to comment.

Dr. Stiglitz. First, on the issue of the Swedish parallel, let me say that financial restructuring conservatorship has been done in the United States. As well as the example that Mr. Hoenig has referred to several times, Continental Illinois, there have been other examples in other countries around the world, so one shouldn't just focus on the Swedish model. They have all been basically very similar, that you put the banks in a conservatorship or you do financial restructuring. This is a model that has worked in many circumstances. I was just talking yesterday to a person from Sweden who was very much involved at the time this was done on exactly this issue, about whether Sweden is different. The answer is, had they failed, it would have been as devastating for Sweden as our system failing would have been for America. The analogy I think is relevant, and the impact on their economy of their failure would have been just as significant.

Scale makes it a little more difficult. The point, which Mr. Hoenig has made before, is that you are going to keep most of the bankers. The government is not going to be running this in the way that some fearmongers have described. The point is you have changed the management and the incentive structures, and having people who are hard working with better management and better incentive structures will work better both for the institution and for our economy.

The attempt to dismiss the relevance of those repeated restructurings is simply an attempt to mislead America about how successful restructurings can be and that they are what economic theory would have predicted would work.

I have not looked at the details of the legislation, but the notion that we need to have a mechanism for an orderly restructuring of these large institutions seems absolutely apparent. It should have been done earlier, after Bear Stearns, when it was clear that the government at that point did not feel that it had adequate mecha-

nisms and had to go into what you might call novel approaches. That is when they should have introduced the legislation, and I am glad that they are finally getting around to doing it.

Chair Maloney. Dr. Johnson and Mr. Hoenig, would you comment on Treasury's proposed legislation that would give the option of resolving the complex companies the way it does with depository institutions? Do you support it? Again I invite your comments either in writing or now on the proposed legislation.

Dr. Johnson. Yes. I have looked at the proposed legislation and we follow this closely. I think it is a sensible step. I also don't understand why it wasn't taken either a year ago or 6 months ago when the need was apparent. I would also stress that I think there needs to be some modifications. I think some of the protections, for example, for workers that are standard in bankruptcy proceedings should also be included under the resolutional authority and that is quite important. I don't see why workers should get particularly hammered when you have to handle these kinds of bankholding companies versus what would happen for a General Motors type situation were they to go into bankruptcy. But I think the basic idea is a good one. I would stress, though, that it is not a panacea. And I think what is going to happen and what is already happening is there is a run on the resolutional authority of the government. So as the system begins to stabilize, we are seeing the credit default swap spreads on some of the largest banks actually widen. And that I think is the market betting that some of the largest banks will or can be forced into being resolved in this way and having debt for equity swaps.

So there will be a debt default for those big banks. In some sense you should be aware that they may further encourage these kind of speculative attacks in the credit market and the government has to be able to act. They have to have enough money and enough clarity of vision to make sure it is not a one-way bet for speculators. Because if they have the sense they can attack a company, force it into being resolved in this way, they will then move on and attack the next credit.

So we are still in a very dangerous situation.

Chair Maloney. My time has expired. Mr. Cummings.

Representative Cummings. Thank you very much. I just want you all to comment on what is the appropriate way for the United States to exercise shareholder rights regarding the firms like AIG, regarding banks that the government converts preferred shares to common stock. And it is very interesting what is happening here in the AIG situation where we own 79 percent of the company and decisions are being made and it is questionable how much power we have and how much power we exercise with regard to those companies, and I mean, I know you all would have preferred to see something different. But now that we are there with the AIG and some of these other companies and we have got these folks who are moving from the preferred to the common stock, I just want to know do you—first of all, do you—how do you see us—should we have a role, a significant role in what happens to those companies and, if so, can the role that we have in those companies alter things in a way to take us in another—in a direction where the taxpayer will be better off?

Mr. Hoenig.

Mr. Hoenig. Yes. Let me answer that in a sense—also answer Madam Chair's question, and that is with that particular instance, that could be structured in many ways is similar to the Continental where you negotiated with the ownership, with the directors as you provided this outside capital and these amounts of money. So it is I think perfectly legitimate and should be structured, since it is government funds that have been sought and provided, that it should be structured in a way that protects the taxpayer first, takes all losses against the stockholders first and then can be risk structured and later reprivatized.

So I think that is very important. But it also begs the question, back to the question in terms of the FDIC proposal, yeah, we should have a much more I think refined resolution process as being proposed in this legislation. We need to take a careful look at this legislation because as it involves the FDIC we have to be careful who is going to fund it because right now that is dependent upon insurance fees across all banks and I think it is very important that we know where the funds are going to come from in the future. But as to these institutions we should have a systematic approach, whether it is AIG or any other institution, to—if the government is turned to for a salvaging situation, it should be put in the position of control that would allow it to be managed and then reprivatized as quickly as possible.

Representative Cummings. Dr. Johnson.

Dr. Johnson. In my opinion, when the government becomes a significant shareholder in the kind of situation we already have with Citigroup, for example, there should be a change—we have the same rights as other shareholders. We should exercise them and there should be a change in the boards of directors and the boards of directors where appropriate should change the management. I thought it was extraordinary that the Treasury said at the moment when they converted from preferred to common back in February, that they were reaffirming—they said this on background to the New York Times, they were reaffirming Mr. Pandit as the CEO of Citigroup. That is an extraordinary statement for the U.S. Government to be making. That is a decision for the board of directors to take. And I think there is a real danger that I would emphasize of political control here. We often think of political control of a credit in many places, in many countries, in many situations as being dangerous, meaning politicians trying to tell the banks what to do. I think the political control here is coming from the—I am quite serious—the power of the insiders in these banks, the bank executives, the people who run these banks are incredibly influential characters and they are I think capturing, if you can believe this, the very process through which the government is coming in and trying to rescue them.

So you are absolutely getting a bad deal on all sides there, and that the only way to do it is to bring in new people to the board of directors and have them assess which CEOs should stay and which should go.

Representative Cummings. Dr. Stiglitz.

Dr. Stiglitz. Yes. First, there is enormous risk of a separation of ownership and control. This has been talked about in economic

literature for a long time, and that in effect is what we have been doing. We have been putting money into Citibank and into AIG and not exercising the control of an owner, to make sure that these institutions operate, at the very least, in the interest of the major shareholder, which is the U.S. taxpayer. That should be the basic principle. I agree very much that we know how to set up governing structures to make sure that banks are more insulated from direct political pressure, such as having a board of directors. This has been done over and over again.

There is one other thing that I want to emphasize, which is that as an owner, I think we should insist on the highest standards of corporate governance and behavior. I don't want as a taxpayer to feel like I am the owner of a company that has become a slumlord or that is engaged in exploitation through exploitive credit card fees or other kinds of exploitive practices. For instance, in the case of AIG, it has written a large number of insurance policies against our troops in Iraq, and it is refusing to pay on those insurance policies. That is outrageous. It is through some technical exclusionary provisions: they got the premium and now do not want to pay. It seems to me that as an owner, we should follow basic commercial principles, but we also ought to be a good owner. We want the company to act as a good, responsible business person would.

Chair Maloney. The gentleman's time has expired. But I would like to share with my colleagues that the Financial Services Committee will be acting on some of these abuses. We will be marking up this week on Thursday the credit card holders' bill of rights that will ban many of these abusive practices. We are marking it up tomorrow.

Senator Klobuchar.

Senator Klobuchar. Thank you very much.

The Senate, Madam Chair, is debating this week The Bipartisan Fraud Enforcement and Recovery Act, which is going to, I think, help greatly. As a former prosecutor, when you have these Ponzi schemes and the Madoff case and things that result from these loose and ineffectual regulations from the past, so we could at least beef up some of the law enforcement's efforts in this area. I think that is going to be a necessary part of this as well.

My question though is, I just came out of the trip I took with Senator McCain and Senator Graham to Asia, and just seeing first-hand, in Vietnam and China and Japan, they are experiencing many of the things that we are but also thinking and asking questions of their leadership about the regulatory structure. And I know this came up at the G-20 meeting with Sarkozy and the whole issue of how these countries work together. But I just have a general question of how we best protect our financial markets in terms of working with other countries when what they do, obviously, we have seen from everything that happened with the London loophole and the Dubai loophole and all these things, how what they do affects what we do, and how we do this? We cannot do this in a cocoon.

Dr. Stiglitz.

Dr. Stiglitz. The first thing is that regulation has to be not only comprehensive within our country; it has to also be comprehensive

globally, even having what is sometimes described as uncooperative jurisdictions—

Senator Klobuchar. That sounds nice.

Dr. Stiglitz. There are regulatory loopholes. The Cayman Islands has not become a major financial center because the weather is particularly conducive to banking. It is because the regulatory environment, including looking the other way in terms of tax evasion, accounting and regulatory evasion, is the basis of their success. We should make it very clear that our banks cannot deal with financial institutions and banks from these jurisdictions that don't comply with the highest standards of regulation. We would shut them down overnight if we did not allow our financial institutions to deal with them; they would not be able to survive. They only survive because we tolerate them. There is now a very big move in a number of European jurisdictions to shut them down.

Senator Klobuchar. Dr. Johnson, with your IMF experience, how would you answer this?

Dr. Johnson. I think seeking comprehensive global regulation is the right goal. And, of course, Dr. Stiglitz is right; there are these loopholes and places with which you can refuse to do business. But honestly, the problem is that the Europeans really don't get this at all. They have massive banks. Their banks have completely captured their regulators. This is a terrible danger to us and to themselves. And the G-20 process which I have, you know, a fair amount of admiration on some dimensions has to my mind completely failed on the regulatory side. It is going nowhere. The Europeans are using it as a smokescreen for their own regulation failure. They let their big banks plow into the most crazy products in the United States. It is true we let our banks sell them, but both parties were very happy with this deal.

Senator Klobuchar. How do you solve it? You have your new blog, right, called "The Hearing," and yesterday, you talked about, your question was, what politically feasible exit strategy makes the most sense in terms of protecting taxpayers and facilitating an economic recovery? So I would ask you that in the context of this international problem.

Dr. Johnson. I think you have to take care of your own national regulations first and foremost, and you have to break up the biggest banks, and then you have to tightly control what other banks coming from other jurisdictions about which you are suspicious, and I am afraid I would include France as well as other European jurisdictions, what they are allowed to do in your country, the kind of interactions.

So Dr. Stiglitz said the Cayman Islands. We can all agree on these small places. But very big countries, there are very big countries that are totally fine trading partners. We get on very well with them diplomatically and other ways. But they don't run their banks in a responsible way. We have to be very clear about that, and we have to be much blunter, I am afraid, than is standard practice at, say, a G-20 framework.

Senator Klobuchar. Mr. Hoenig, final word.

Mr. Hoenig. Very quickly. I agree. We have to first start with ourselves, make sure we have a strong regulatory system. We will

need to look at that and strengthen it, as I have said before. We have to do that first.

There are mechanisms. There is a Bank For International Settlements and a Financial Stability Institute where the central banks get together, negotiate, talk about these things. I think we do have to assure ourselves and work with these other countries that they, too, would implement improved regulatory standards. I don't think we just walk away from this. I think we have to come together, and I think we can do that over time.

Senator Klobuchar. Okay. Thank you.

Chair Maloney. Thank you.
And Congressman Miller.

**OPENING STATEMENT OF HON. BRAD MILLER, A U.S.
REPRESENTATIVE FROM NORTH CAROLINA**

Representative Miller. I will take Senator Klobuchar's seat.

Thank you, Madam Chair, for your kindness. I know that I am officious intermeddler here, and I didn't object to sitting with the hoi polloi, but you do hear better up here.

One question that I have, both Dr. Stiglitz and Dr. Johnson have helped me understand the problem with zombie banks. When you use the term "zombie banks," it sounds so bad, you almost don't need to explain why it is bad. There are core reasons; one is they don't make normal profitable loans that would put their capital at risk for getting a normal return.

But on the other hand, as Dr. Stiglitz I think wrote in *The Nation* recently, they make kind of crazy risks because there is no point in not; you know, if you are going to go bankrupt anyway, you might as well try. The comparison to a basketball team down 8 points with 2 minutes to play, you know, you jack up shots quickly; you foul; who cares if you lose by 14 instead of by 8, if the object is to try to stay alive.

Dr. Johnson, in a recent op-ed and in your testimony just a minute ago, you said that leaving the incumbent management in place is also a big problem as well because they have been cooking the books, and you are not going to figure out what the status of the bank is and what they have been doing until they are out of there and you have got fresh eyes in there.

But I want to pursue the kind of crazy risk scenario. And Dr. Stiglitz, you pointed out in that *Nation* article that one of the reasons the banks aren't modifying mortgages is the only way they can survive is if the mortgages actually prove to perform, even though there is every reason to think that they won't.

The Congressional Oversight Panel in the last week or so has criticized the banks receiving TARP funds for jacking up every other kind of consumer fee, for overdraft fees, for credit card interest. I heard an estimate yesterday that banks think that overdraft fees will be \$40 billion this year, which is more than twice what it has been in the past. Is that also an indication of a zombie bank trying to get back in the game?

Dr. Stiglitz. It is as much evidence that there is a lack of effective competition in our financial system. It really is a reinforcement of what Dr. Johnson has repeatedly said about the need for more competition. The concentration in the credit card industry is par-

ticularly severe, a real area of anti-competitive practice. You wouldn't be able in a normal competitive market to get away with that kind of increase.

I don't think in this particular aspect that they are gambling on what I call resurrection, where you take big risks in order to survive. You might say there is a political risk of a backlash, which is really the risk that they are taking. However they seem to be amazingly insensitive to those kinds of risks. In terms of their ability to exploit and get people to do that, it is very clear that they know that they can probably get away with it, especially when they all do it together.

Representative Miller. Okay.

Dr. Johnson.

Dr. Johnson. Two points, first of all, what you just stated in terms of overdraft fees is an indication of excessive market power and potential collusion. It should be referred directly to the Department of Justice, and there should be a serious investigation of this. I think, within the framework of our existing antitrust laws, they can tackle exactly that kind of behavior.

Secondly, in terms of the kinds of behavior you get from zombie banks, there is strong what I would call anecdotal evidence, and I can't prove this, but this story comes very strongly from various parts of the market that one thing that our largest banks that now regard themselves as invisible are doing is using their extensive credit from the Federal Government to essentially take very big short positions in the credit of other financial institutions, including some of the other big banks, their rivals potentially, and also in some of the more vulnerable emerging market countries.

Now this is incredible, right. If true, it says that we, the taxpayers, directly through TARP and through the Federal Reserve, are financing proprietary traders in some of our largest banks, engaging speculative attacks that will potentially lead to further taxpayer losses as they—this is how you run on the resolution authority; you use your line of credit from the Fed in order to do it. These are anecdotes. These are not proven. But if something like this does come out to be true, then we are going to feel ourselves even more foolish if we allow the system to continue as we currently do.

Representative Miller. One of the arguments we will hear against Mrs. Maloney's credit card bill and overdraft bill and other consumer protections, including Dr. Stiglitz, the Consumer Product Safety Commission, is that this is not the time to do anything that will restrict credit.

Given the abuses and given the conduct of banks trying to—not really being subject to any market limitation, not being subject in the limitation based on moral compass either, that this is as good a time as any to rein in those practices rather than have it go to banks that are trying to stay afloat.

Dr. Stiglitz. I think it is really a good time to rein it in, partly because one of the things that is restricting individuals from purchasing goods is the recognition that they have to pay excessive fees. It is like a price increase. They look at the cost of credit, which is going up now, and they know that the banks have treated them abusively in the past. They are more anxious about it. If they felt more comfortable that the financial system in its lending prac-

tices is more under control, they will be more willing to take out credit. So I view that as an absolutely essential part of our recovery efforts.

Dr. Johnson. There will never be a good time according to the bankers to do this, right? And this is exactly—or they will say the recovery is too fragile; we need more time.

I think now is the right time for the reasons Dr. Stiglitz said. People more broadly understand there have been predatory practices, and I think there have been violations of our antitrust laws. And I think that you have to address those. There is going to be deleveraging. There is going to be difficulty in the credit market. What you want is to have a banking system within 18 months, 2 years, that is functioning properly, soundly and competitively; that is in a position to provide sensible amounts of credit as the recovery really moves forward.

Mr. Hoenig. As far as I would tell you is, if you provide better information to the consumer so that they are making good credit choices, you are actually going to improve things much greater for the future. I think part of the problem is, people have not been well informed and have made bad credit choices. And that is part of what the downside of this is. So I think it is all upside.

Chair Maloney. Thank you very much for your comments and building support for a bill we will be marking up literally tomorrow.

And as we speak, there are so-called stress tests going on in 19 of our largest institutions. And I would like to ask you, how confident are you that the stress test will tell us which banks to bring back to life and which banks to shut down? We have not been given the information about or the public has not been given the information about how these stress tests will be conducted. So I would like to ask you, how would you design a system or stress test to determine which institutions are solvent and which are not? And can you be specific about how you would design such a system, and then, of course, do you think this system will be sufficient to lead us forward?

Thank you, and I open it to anyone.

Please, Dr. Johnson.

Dr. Johnson. I think the notion of a comprehensive stress test is a good one. The question is the scenarios that you use. We know what the results are going to be. It is mystifying to see how long it has taken to produce the results because it is all about the macroeconomic scenarios, the downside scenario, so the stress scenario, and the stress scenario that the government assumed for this exercise is really quite a mild one.

To answer your question directly, this particular version of the stress test, the way it has been implemented will tell us very little about the underlying solvency issues of these banks under duress. The point of the stress is to examine, under duress, how much capital will they need, and to make a plan for raising that capital either privately or through some government support or through some kind of restructuring, some kind of conservatorship. I think, unfortunately, these stress tests are not going to be informative.

Chair Maloney. Dr. Stiglitz, can you give specifics about how you believe the design of such a system should work?

Dr. Stiglitz. Let me first make a prefatory remark. The banking system was supposed to be performing stress tests on their own banks prior to the crisis. That was the whole notion of self-regulation that was proposed. They went through those stress tests, and they said, well, we are fine. We were managing their risk. We know the stress tests by themselves don't tell you anything.

It all depends on the models and scenarios you put in. The models include all kinds of things, not only the macroeconomic assumptions but also very detailed assumptions about the correlations between various risks and the probabilities of small-probability events occurring. A large number of particular assumptions go into it.

The most important of those assumptions have to deal with the macroeconomic issues, like what will be the magnitude of the fall in the prices of real estate, including commercial real estate? What will be the level of unemployment? What will be the likely level of bad commercial and consumer loans? If you put in very mild assumptions, then, as Dr. Johnson said, we know they will pass the stress test. Unfortunately, the few assumptions that they have announced do not give us very much confidence. Even if they pass this test, they are using models that didn't work well before, so we won't have much confidence in the outcome or be able to say that these financial institutions will really be able to survive over the next 2 years with a high degree of confidence. I don't think they are going to succeed in convincing us that it is going to work.

One of the other things I just want to add is about the reform; the changes in the accounting practices have made it more difficult for us to tell what is going on. I think that is something that we should be very concerned about.

Chair Maloney. Well, thank you for your statement.

And many people have argued that we need more flexibility in the mark to market and therefore FASB came forward with their new flexible rule. And do you support this flexible rule? It should allow the banks to maybe be—or at least appear to be more solvent on paper.

Dr. Stiglitz. You used the key word: appear. We want to know what their real state is, and we want to make a distinction between how we use the information and the information that we have. As ordinary investors, we can't look at the banks' books; we have to rely on their accounting. If we are told that the banks have the discretion not to write down a mortgage or a security that is impaired because they are going to hold it until maturity, that is deteriorating the quality of the information. We know less and less about the state of the banks, and that is contributing to the uncertainty, making it more difficult for our economy to resolve the problems that it needs to resolve. We want the best information, and then the regulators need to make a decision about how to use that information. This move to less transparency is a real big disappointment.

Mr. Hoenig. Can I just say one thing on that, Madam?

I think that the rationale for the change in the accounting rule was that these are—some of these are fire sale values, and they are not the intrinsic. If you can show where the value is, that is the bank can show where the value is actually there, you can put these

on the books appropriately. I think that is a legitimate approach, but I would say that it requires then that the supervisory authority with very clear guidelines go in and check those numbers so that you don't game the system, so that you don't get an abuse out of it.

Chair Maloney. Thank you very much. My time has expired.

Mr. Cummings.

Representative Cummings. Dr. Johnson, you—and I think all of you have alluded to this that a part of resolving this financial problem that we have, part of it is confidence, people feeling comfortable to spend, to invest and whatever. And one of the things that is so interesting is that I believe that the President is doing everything he can to turn this situation around. But I also believe that it is important that the public feel comfortable that their money is being spent effectively and efficiently and that there is some benefit that is going to come back to them.

And one of the things that seems to be so controlling in a lot of these ways we got into this problem, it seems we have got into this problem, and that is these salaries, these bonuses. I mean, I don't think the American people have any problem with people getting bonuses. It is just that they have a problem with people getting bonuses who have failed their companies and failed them while they sit there with no job, no savings, no anything.

So is there some kind of way that we can—do you think there should be some restructuring of this salary system, any of you, so that people are adequately compensated for all that they do, but at the same time, it is not driving—it seems like you are getting rewarded for doing things quickly and quantity as opposed to quality? And I think that is kind of what kind of—that is part of what caused the problems that we have here. And I was just wondering about you all's thoughts on that.

Dr. Johnson. I think this is a central issue. I think it has to be addressed. I think these very large payments to insiders, these bonuses you are talking about, are a reflection of the market power of these players. And I think you should address that both through regulation of what is acceptable compensation, schemes—remember, it is also encouraging them to take a lot of risk and hope that bad things wouldn't happen within the same bonus period so you get to cash out first. That is not acceptable for anything that has any kind of systemic impact.

I think corporate governance needs to be much stronger, and we have allowed a system to develop with these very big players basically run by the management of the banks; the owners are not involved in effectively controlling compensation. And I think that they come back to the key point which is really the way to change the nature of the bank system is to make it more competitive. I think a vibrant financial services industry is essential to the prosperity of New York and to the prosperity of this country. But having it dominated by four or five or six massive players is not good for the country, and I don't think it is terribly good for New York City either. That is where I stand on it.

Representative Cummings. Dr. Stiglitz.

Dr. Stiglitz. First, I think we want to distinguish between the structure and the level of the incentives. The structure of the in-

centive system as it is officially described encourages short-sighted behavior and excessive risk-taking, and this played a role in bringing on these problems and should clearly not be allowed within the core financial systems and in these too-big-to-fail institutions.

The second thing, on which I very strongly agree with Dr. Johnson is that there are real problems in corporate governance. How did the banks allow their executives to get paid in ways that the shareholders have lost? Everybody has lost. The American people have lost. The only people who have gained have been the executives of these companies. We really need changes in corporate governance. One clear part of that is transparency of the payments to executives. A lot of them get paid by stock options, which are not expensed, not shown clearly to even the shareholders and, in many cases, are interestingly described as incentive schemes. We now know that they are not incentive schemes: The salary is high when things are good and high when things are bad. When things are good, they are called bonuses. When things are bad, they are called retention payments, so they don't leave. However, we know that this is all a charade.

One of the things that ought to be done as part of corporate governance is to require transparency about total compensation and the relationship between performance, not just the announced relationship but the actual relationship between pay and performance. If you did that, I think there would be a shareholder uprising. They would say, you have been swindling us and calling this incentive pay, but it is not. It doesn't work that way. You get paid whether things are good or bad.

Mr. Hoenig. Let me just add quickly, I wouldn't have the problem with pay and bonuses if we didn't have too big to fail because it would fall on the shareholder. And they would develop things that have fallback provisions to bring these bonuses back over time. When you don't have the ability to fail, then I think these bonuses need to be restructured and probably will end up being regulated. So we really have to address the fundamental problem here today, and that is to address too big to fail.

Representative Cummings. Thank you.

Chair Maloney. Brad Miller.

Representative Miller. Dr. Stiglitz, I am sure you have read Dr. Johnson's piece in the Atlantic in the last couple of weeks. He makes the point that if the United States were any other country in the world and came to the IMF, the IMF would say, you have to do two things: First of all you need to reboot your financial system, your banking system; but second of all, you have got an oligarchy that is controlling your economy and controlling your political system, your government, and until you end the power of the oligarchy you are not going to get the reforms that you need to fix your economy. Do you agree with that analysis?

Dr. Stiglitz. Very much so. I have often actually given the same kind of analogy, as chief economist of the World Bank. If I had come and visited the United States, we would have cut off all aid to the United States. It would have not passed muster. As an example, if you looked at the Public-Private Partnership Program as it has been announced, we would have said, this looks like a scam. One of the reasons that I am very sensitive about this issue is

probably the same reason Dr. Johnson is, that we have seen in the midst of crises in so many developing countries massive redistributions from the ordinary taxpayers to the financial sector.

What we are seeing in the United States is a pattern that happens over and over again. We are not even original. We are a little bit clever in some of the ways we are doing it, but it is a pattern that one sees over and over again.

Representative Miller. How do we—I assume, Dr. Johnson, you agree with your own article.

How do we do that? I mean, is it enough to take banks into receiverships and therefore displace the incumbent management, the banks that are insolvent or so thinly capitalized that they should be in a receivership, creating smaller banks? What more needs to be done to limit the power of those who are now controlling our economy and our government?

Dr. Johnson. If that question is to me, I think what—I could live with various schemes, at least the schemes put forward by my colleagues this morning. I think what Dr. Hoenig is telling you from his vast experience coming from within the Federal Reserve System is that this is totally doable, and the only thing I think I am adding on top of that or perhaps I am emphasizing antitrust can be used as a mechanism to make sure people don't become too big to fail. I think that is an application within Dr. Hoenig's framework. And I think this is an issue on which right, left, and center can completely agree.

The difference I think is not the standard differences across the political spectrum. It is very much, there is a group of people who think big finance, that you have got to stick with big finance; they brought you here, and they are the only people who are can get you out.

And there are people from across the political spectrum like us today with very different, I am sure, opinions on other points, but we are agreeing on this. We are agreeing that big finance is too big, and it can be dealt with within our existing framework. And that is a matter of pressing national priority.

Mr. Hoenig. So long as you have too big to fail, you will have oligarchies. You have to have mechanisms that allow for failure, or I think you will encourage that outcome.

Representative Miller. A couple of you have mentioned the need for reform of corporate governance. One proposal that Carl Icahn has proposed allowing a shareholder vote on the State of incorporation rather than letting management choose a State of incorporation and always choosing the State that is most indulgent of management, Delaware; there would be a pressure on management if they knew they could lose that vote. And I think Icahn said Delaware—I am sorry. Iowa. Is that a useful proposal? And what are the proposals for how to reform corporate governance?

Dr. Stiglitz. There are a number. I think that is a very interesting one. It is important to just let shareholders know what the compensation is. Right now through our accounting system, we don't typically force them to expense stock options. They don't realize the magnitude of the delusion of shareholder value. I agree with the initiative of allowing shareholders, who are, after all, the owners, to vote on the compensation; what I find shocking is the

resistance to even a nonmandatory vote, which there is now. There are a whole set of specific reforms in shareholder control. A variety of mechanisms have been developed so you rotate the board very slowly so that no one can take over the board. It will take 5 years before you can change the board after you are the owner. There are many things that have been put in the way to get more discipline in the market for corporations through shareholders.

Chair Maloney. The gentleman's time has expired.

Gentlemen, is stock price a good indicator of a successful program for bringing zombie banks back to life?

Dr. Stiglitz. That is a great question, partly because too often when a proposal is put forward, for instance, for a bank restructuring, they say the market loves it because stock prices have gone up. In a sense, stock prices going up can be a sign of a very bad proposal. One way of getting stock prices up is writing a big blank check to the banks. Yes, the owners of the banks will love that, but the taxpayers' shares which we don't actually see, have gone down, and our national debt has increased, by even more than the shareholder value has gone up. Shareholder value is a very bad signal of what is a good program for the American economy. It doesn't tell you about lending or the net cost to our society.

Chair Maloney. And also in this debate, some have suggested that the taxpayer is not at risk for the guarantees provided by the FDIC since it is obligated to be self-sustaining. Does this mean that we should not be concerned about potential losses?

Dr. Stiglitz.

Dr. Stiglitz. There are two issues here. One is that, the losses can be so large that even though the FDIC is supposed to be self-sustaining, the sense will be that they cannot fill it and will come back to Treasury. Even if they don't, the question is, who is going to pay? The way the FDIC generates revenue is by a tax on depositors, so we are asking depositors, including depositors at good banks and community banks, to pay for the losses.

In my testimony, I talk about the principle, in environmental economics that the polluter pays; that is, those who pollute the environment ought to pay for the cleanup. The big banks have polluted our economy with toxic mortgages. In effect, they are asking other people to pick up the cost. I think that any system which forces others to pick up the cost is neither fair nor efficient. This is the problem that we have been talking about, of shifting the cost to others, both short-run and long-run distortionary costs to our economy.

Chair Maloney. Can you tell us, Dr. Stiglitz, your opinion about the government taking preferred stock initially with the TARP money but now taking common stock warrants? This happened, I believe, over the weekend. Can you address the trade-offs for the taxpayers as well as the ability of the company that is bailed out to attract outside capital?

Dr. Stiglitz. The first effect is very clear that we now bear more risk. The nature of a preferred share relative to a common share is that there is more risk in a common share.

The second point is that, as a common share, we should have much more voice in the actions. We are now an ordinary share-

holder. However, my understanding is that we won't be exercising that voice and that vote.

The critical issue is, what are the prices? We know from the Congressional Oversight Panel that we got cheated in the initial share issues. The real question is, and I haven't seen the details, what were the prices as they converted preferred shares to common shares, and did we get cheated once again? If the suspicion is that we did, I think there should be a real outrage over what has happened.

Chair Maloney. Dr. Johnson and Mr. Hoenig, would you like to comment on this?

Dr. Johnson. I agree and wholeheartedly second what Dr. Stiglitz just stated.

Chair Maloney. Mr. Hoenig.

Mr. Hoenig. It depends on what the prices are and what the striking prices are in the warrants. So it depends. But having taken it—if we take a common stock position, then we should have more control and more voice in it, no question.

Chair Maloney. Speaker Pelosi is supporting a review of what brought us to this crisis. Over the weekend, Jamie Diamond from JPMorgan Chase gave a speech about some of the causes. And in it, he mentioned the high cost of the war that was not really apparent to the public. And I cite your book, Dr. Stiglitz, the \$3 trillion war. Many of you in your writings have cited other reasons, the high leverage and so forth. Would you like to comment on what you believe brought us to this situation for the record?

And you can submit your further thoughts in writing for the official record. All of your testimony has been tremendously insightful, deeply appreciated. We will be circulating it to our colleagues on both sides of the aisle and certainly to the general public. I thank you very much. But we would like to hear your ideas for the Speaker on what brought us to this situation, Dr. Stiglitz.

Dr. Stiglitz. Well, it is clear that the low cost of finance was a contributing factor. One of the reasons that interest rates were lower than they would otherwise have been was the fact that we had to keep our economy going even though we were spending hundreds of billions of dollars to import oil from the Middle East and to offset that and other weaknesses in the economy.

If we had had a financial system that functioned, having low cost of capital would have been an advantage. Most societies like the idea of having a low cost of capital. It could have been allocated by a well-functioning system to a burst of investment in our economy, and a whole set of issues could have been addressed.

The bottom line of the failure is our financial sector. Our regulators didn't stop them, but that is like a thief saying, I stole it, but the cop didn't stop me. The fact was, it was the financial sector that didn't do its job. The energy was there from the low interest rates. It could have been used in a better way, but the regulators didn't stop them.

Dr. Johnson. The big banks in this country became much more powerful in economic terms and political terms with deregulation in the 1980s, the arrival of new technologies particularly derivatives in the 1990s. And they plowed this political influence back into further deregulation, further tilting the field playing field in

their favor, and this allowed them to build compensation systems that were extremely favorable for the insiders that enriched people at the very top of these organizations. But it also loaded them up with risk. And this created massive system risk that has now come back to haunt us on a colossal scale.

Unless and until we address the underlying fundamental problem, excessive economic power and political power of big finance, we will not really resolve the situation.

Chair Maloney. Mr. Hoenig.

Mr. Hoenig. I think that, importantly, we saw the end of clear strong underwriting standards, and we allowed our institutions to leverage up far beyond what they should have. Thank you.

Chair Maloney. Well, I would like to thank our distinguished panel of witnesses for your testimony today. Stabilizing our financial system is critical to the recovery of our economy. All of your testimony has helped policymakers make more informed decisions. I look forward to your written comments.

The record will be open for 5 days for additional questions that may be put in writing or statements that other members may want to put into the record. I am deeply grateful for your testimony today. Thank you so much for coming.

[Whereupon, at 12:12 p.m., the committee was adjourned.]

SUBMISSIONS FOR THE RECORD

PREPARED STATEMENT OF REPRESENTATIVE CAROLYN B. MALONEY, CHAIR

Good morning. I want to welcome our extraordinary panel of witnesses and thank you all in advance for your testimony today.

This hearing is timely because Congress expects to take up legislation being prepared by the Administration that would expand the federal government's ability to unwind large financial institutions.

The current financial crisis has made clear that we need additional tools to handle financial institutions that are "too big to fail."

The disorderly failure of large financial institutions can pose a significant threat to the stability of the financial system, both in the United States and globally.

The panic after Lehman Brothers declared bankruptcy last September is evidence enough that, under our present regulatory structure, allowing large financial firms to fail can seriously damage our economy.

Another failure could have created even worse economic consequences, with even deeper effects on employment, incomes, and growth.

On the other hand, unconditional support for large failing firms can be just as dangerous. Implicit guarantees give firms incentives to take bigger risks. Allowing firms to escape the consequences of bad business decisions could prompt even riskier behavior.

Our financial regulators presently lack the means to steer between these two unacceptable alternatives. Chairman Bernanke and Treasury Secretary Geithner recently testified before the House Financial Services Committee that without new legislation, they lack the authority to conduct an orderly unwinding of large financial institutions such as AIG.

The FDIC has mechanisms in place to allow resolution of failed depository institutions. For the other subsidiaries of bank holding companies, and for investment banks, insurance companies and other large financial firms, the only option seems to be bankruptcy.

Fixing our financial system is of the utmost importance. We are therefore fortunate to have with us this morning three outstanding experts as we discuss the topic of restoring confidence in our financial system while minimizing both the cost to taxpayers and the incentives for institutions to take excessive risks in the future.

I am confident that we in Congress can work with the administration to solve this crisis and give regulators better options and tools to prevent as well as cope with future financial crises.

PREPARED STATEMENT OF SENATOR SAM BROWNBACK, RANKING MINORITY

Thank you Chairwoman Maloney for arranging today's hearing on the issue of institutions deemed "too big to fail." I look forward to the testimony of our distinguished panel. I am especially pleased to see before me my friend, President Thomas Hoenig of the Federal Reserve Bank of Kansas City.

I have found President Hoenig's recent remarks about the issue of "too big to fail" useful and find his proposals to deal with the issue very constructive. In his words, "too big to fail has failed."

It's hard to pick one word to describe fully the feelings of the constituents I talk with in Kansas. The emotions run the spectrum from bewildered and confused over how this happened to anger over being forced to use their hard-earned tax payments to fund risky, speculative bets of large institutions and bad decisions of highly sophisticated titans of finance. The argument that these institutions pose a "systemic risk" and threaten to bring down the entire system if they are allowed to fail is not easy to digest. My constituents want to know how a set of large speculative institutions ended up threatening the entire financial system and economy. They also want to know what we can do to make those responsible pay the price with as little cost to the taxpayer as possible and what we can do to insure that no institution is ever allowed again to threaten the stability of the financial system and the American economy.

When an institution grows to be deemed too big to fail, it ends up having too much leverage over the entire financial system and economy. With expectations that regulators and others with oversight would not allow such large institutions to fail in the event that their large speculative bets turn out bad, there is little incentive for the too big to fail institutions not to make those reckless bets. The incentive structure for a too big to fail institution, articulated often and by many commentators is simply this: heads we win; tails the taxpayer loses. The large institutions are effectively allowed to place one-sided bets with taxpayer backing.

My constituents and, indeed, most Americans, find this situation intolerable. We need to firmly address the too big to fail issue and provide some constructive mecha-

nisms to deal with the issue. And, while it is important that we achieve success from the bailouts to Fannie Mae, Freddie Mac, Bear Stearns, AIG, auto companies, and more, it is also important to note that failure to address the too big to fail problem can ensure future instability. Having repeatedly sent the message that if you get big enough, we will use taxpayer funds to bail you out, there is little reason to believe that, in the absence of dealing with the too big to fail problem, large institutions in the future will not simply expect more of the same. We can expect that, in the absence of action, the problems of “moral hazard” will recur.

While the words “too big to fail” have been part of the public debate over financial policy for decades, until a little more than a year ago, the term “systemic risk” was a term rarely heard in hearings or debate on the floor of the House or Senate. In the public’s mind, “too big to fail” was often viewed as a sign of an institution’s strength rather than a designation given to institutions that would potentially cost taxpayers hundreds of billions, even trillions, of dollars.

We need a mechanism to identify when an institution is becoming so big that it may begin to impose threats to the stability of the overall financial system and economy. We need an operational framework that can identify growing threats to stability and when to intercede. We need market discipline and systemic oversight.

We already have processes that have proven effective. For example, the FDIC oversees insured banks, supervises them, identifies troubled institutions in early phases of difficulties, and resolves the difficulties using various processes like conservatorship and receivership. Our current difficulties stem from the fact that institutions, whose creditors were not insured by something like the FDIC, were not effectively supervised, and often operated in what has been called the “shadow financial system.” They grew so large, complex, and intertwined with others that they threatened and brought down the stability of the entire financial system.

We need to construct ways to get large speculative bettors out of the shadow system and under supervision if those bettors begin to threaten systemic stability. And, we need to insure that supervision, oversight, and regulation is dynamic and keeps pace with the ever-evolving shapes and forms of institutions and financial products.

I understand that there are difficulties and challenges in constructing the oversight and regulatory mechanisms needed to address the too big to fail problem. Fortunately, we have some of the best and brightest minds on our panel today to help us make progress in understanding and addressing the problem. I know that President Hoenig has thought carefully about the problem and has identified what seem to me to be key elements of a strategy for resolving the too big to fail problem, and I particularly look forward to his thoughts.

I hope we can get to several key issues during today’s hearing. First, are these institutions truly “too big to fail?” or is there an orderly process under which they can be liquidated with minimal cost to the taxpayer and the financial system? Second, what approaches should we take in the future to prevent a repeat of this disaster? Is there any way to impose a different set of regulations on “systemically important” institutions that does not create gross distortions in the market for financial services? Rather than trying to reduce the risk associated with these institutions through regulations, should we consider simply not permitting an institution to become “too big to fail” and restructuring those who are? We must also be extremely cautious in listening to these financial institutions’ arguments regarding the need to impose significant new restrictions on the over-the-counter market for non-financial product derivatives. Those arguments are about market power, not about the soundness and safety of the financial system.

I am deeply concerned that the government’s response to date has served to increase confusion in the market rather than restore order. It seems as though we move from ad hoc response to ad hoc response, with each iteration in the process costing the taxpayers billions more. It is time to reach a resolution. If we do not adequately address the problem, too big to fail will return in the future. Taxpayers do not want to have to pay higher taxes, nor have their children pay higher taxes, to cover the reckless bets of institutions that have grown too big to fail.

PREPARED STATEMENT OF REPRESENTATIVE MICHAEL BURGESS, M.D.

I am pleased to join in welcoming the members of the panel testifying before us this morning. We are all very concerned about the financial crisis and its impact on the economy.

The roots of the financial crisis are to be found in government policies that encouraged risky mortgage lending practices as well as a breakdown of lending standards in the private sector. Many banks and other financial institutions made terrible investment decisions that resulted in huge losses that now have to be written

down. While some seem to think the financial situation is improving, the fact remains that loan defaults continue to trend upward, and probably will for some time to come.

The Obama administration has responded with a plan announced on February 10th based on public and private partnerships to purchase the toxic assets of the banks. Many economists have raised concerns about whether this plan is adequate given the magnitude of the problems in the banking sector. Estimates of the amount of toxic assets in the U.S. banking system now range up to \$2 trillion.

The Administration plan relies heavily on providing generous subsidies to private sector participants who would enjoy half of any partnership profits. However, if the partnership fails, the taxpayers would shoulder over 90 percent of the losses. The prospect of trillions of dollars of taxpayer money at risk in this plan is very troubling.

I am even more disturbed at the lack of transparency and accountability in the Administration plan. The Treasury seems to have designed the plan specifically to evade the Congressional appropriations process. Trillions of taxpayers' dollars are at risk, but Congressional approval is not needed for the plan to proceed. This is a violation of the democratic process.

Perhaps Dr. Stiglitz said it best when he characterized the recent Treasury proposal as robbery of the taxpayers. There is even speculation that firms receiving bailouts could also directly or indirectly participate and enjoy the rich subsidies offered in the Treasury plan. I remain concerned that the costs of this plan will be exorbitant, and that it will not work effectively to solve the financial crisis.

Putting the future impact of the Department of Treasury's plan aside for a moment, I want to take this opportunity to announce a plan to address the past. Today I am introducing a bill to create a Congressional Commission on Financial Accountability and Preparedness. I have put together this bill, along with the support of Ranking Member Brady, to address something that my constituents bring to my attention all the time—the fact that we don't really know what and who caused this financial breakdown, and also the fact that no one has been held publicly accountable for the path that got us to this point today. People in Texas want answers and they want to see that their government is willing to seek the truth without politics getting in the way, especially before we put a new regulator or regulations in place. This temporary and bipartisan commission can accomplish that goal. I hope the other members of this Committee will join me and Ranking Member Brady and support this legislation.

Thank you Madam Chairwoman, and with that I yield back.

[Editorial From the Investor's Business Daily, April 16, 2009]

PROBE YOURSELVES

Finance: House Speaker Nancy Pelosi wants a broad "probe" of Wall Street, much like the 1932 Pecora Commission that led to sweeping bank reforms. Good idea. Let the probing begin—with Pelosi's Congress.

Named for its chief counsel, Ferdinand Pecora, the 1932 congressional commission dragged influential bankers and stockbrokers before its members for rough questioning—both of their business practices and private lives.

The Pecora Commission led directly to the Securities Act of 1933, the Securities Exchange Act of 1934 and the creation of the Securities Exchange Commission in 1935 to oversee Wall Street.

Now Pelosi's calling for an encore. "People are very unhappy with these bailouts," she noted, especially the bonuses that went to executives. "Seventy five percent of the American people, at least, want an investigation of what happened on Wall Street."

No doubt, that's true. The problem is, what "happened on Wall Street" was a direct result of what happened on Capitol Hill and we're not the only ones who believe that, by the way.

"Government policies, especially the Community Reinvestment Act, and the affordable housing mission that Fannie Mae and Freddie Mac were charged with fulfilling, are to blame for the financial crisis," wrote economist Peter Wallison, a fellow at the American Enterprise Institute, recently.

"Regulators also deserve blame for lowering lending standards that then contributed to riskier homeownership and the housing bubble." Exactly correct.

As such, Pelosi's proposed Pecora-style commission will be little more than a fig leaf to cover Congress' own multitude of sins—letting its members, the true creators

of this financial mess, bash business leaders as they pose as populist saviors of Main Street from Wall Street predators.

Why do this now? Pelosi and her Democrat colleagues are feeling the heat from Tea Party demonstrations and growing voter anger over the massive waste entailed in the \$4 trillion (and rising) stimulus-bailout bonanza. Again, the Democrats created all this spending. Now, as it proves unpopular, they just walk away from it.

On NPR Thursday, a reporter confronted Rep. Barney Frank, chairman of the Financial Services Committee, with the fact that his \$300 billion “Hope for Homeowners” program, passed with much fanfare last fall, had so far helped just one homeowner. One.

Frank’s response: It was the fault of the “right.” And Bush.

Truth is, Frank’s party has been in charge since 2006. And during that time, Democrats have presided over one of the most disgraceful and least accomplished Congresses in history. This financial mess began on their watch, yet they pretend otherwise.

What better way to take the heat off yourself than by pointing accusing fingers at those most unlikable of people—Wall Street bankers? That’s what the Pelosi-Pecora Commission will do.

It won’t get to the bottom of our financial crisis; it will carefully select scapegoats to be ritually shamed by the liberal media, stripped of their wealth, and exiled. Then new rules will be imposed that will no doubt make things worse. And the cycle will begin again.

We’re not saying Wall Street has no blame for the financial meltdown. But Wall Street didn’t create the subprime mess. Congress, through repeated interventions in healthy markets, did. And when the whole thing failed, it was Congress’ fault.

We’d be happy to support a 9/11-style commission to look into the causes of the financial meltdown. But only if Congress agrees to put itself in the dock. Anything less would be a sham.

PREPARED STATEMENT OF DR. JOSEPH E. STIGLITZ

Let me first thank you for inviting me to speak to you on this critical topic. Too little attention has been given to the question of what kind of a financial system we want to have as we emerge from this crisis. The decisions we make today on how to rescue it inevitably will shape the financial system of tomorrow.

As we think about what kind of financial system we would like, we should begin by recognizing the failures of our existing system.

A good financial system manages risk and allocates capital, with the intent of increasing the overall efficiency of the economy; it does this with low transaction costs. However, we have a financial system which created risk and misallocated capital, with high transaction costs. While capital was being misallocated to homes beyond people’s ability to pay and in places where homes were not needed, too little capital was being deployed to new start-ups, to create and expand small and medium size enterprises, which are the bases of a dynamic economy.

A small part of our financial system, the venture capital firms, is responsible for a large part of our economy’s economic growth. While our big banks have not been at the center of this dynamic growth, they have been at the center of this tempest; they have created risk to our country, without any offsetting rewards—though to be sure those in the industry have been rewarded well.

Other parts of our financial system have done a good job—community banks, credit unions and local banks—in supplying consumers, small and medium sized enterprises with the finance they need.

But we should also be aware of the inadequacies of our financial system—beyond the failures in risk management and capital allocation that led to this crisis. Our financial system discovered that there was money at the bottom of the pyramid and made a concerted effort to make sure that they money did not remain there. They engaged in predatory lending; it is ironic that they were hoisted by their own petard in the sub-prime mortgages. (As an aside, preventing banks from becoming too big to fail, and intense regulation of these too big to fail institutions, is not the only thing that is needed. We need a Financial Product Safety Commission to assess which financial products are safe for use by consumers—and for what purposes. But this Commission will help in addressing the problems of the too big to fail banks as well. It will take risk out of the system; these banks will not be able to buy up big packages of financial products that have a high risk of non-payment. We need strong regulation at the bottom of the pyramid to complement the strong regulation at the top that I describe below.)

In some developing countries, modern banking services have been extended to even the poor in remote villages; by contrast, the poor in our inner cities are still using check cashing services which charge exorbitant fees. Modern technology should have resulted in a low-cost electronic payments system. Our system entails exploitive fees.

Thus, as we go about repairing—and bailing out—our financial system, we must keep in mind the kind of system we want to have going forward. We should not want to go back to the world as it was before the crisis. Nor can we.

We had too big of a financial sector. In the post-crisis era, the financial sector as a whole will shrink. Do we want it all to shrink proportionately? Or do we want to strengthen those parts that have done well, forcing most of the cutbacks on the too-big-to-fail institutions that have held a gun at our head and demanded the payment of hundreds of billions of dollars, lest the whole economy fails? There is no good case for making the smaller, competitive, community-oriented institutions take the brunt of the down-sizing, as opposed to the bloated, ungovernable, and predatory institutions that were at the center of the crisis.

I believe that one of the key problems comes from our allowing certain institutions to grow to be too big to fail—or, at the very least, very expensive to save. Some of them have demonstrated that they are too large to be managed. As Edward Liddy put it, “When I answered the call for help and joined AIG in September 2008, one thing quickly became apparent: The company’s overall structure is too complex, too unwieldy and too opaque for its component businesses to be well managed as one entity.”¹

And yet, the response to the crisis has led to a consolidation of the big banks, increasing the risk of surviving banks becoming “too big to fail.” The Congressional Oversight Panel has made it clear that some of the too-large-to-fail banks have been the recipients of huge subsidies under TARP. As I am sure you are aware, in the first set of TARP transactions, the largest subsidies, both in amounts and in percentage, went to Citigroup, Inc. and AIG. The value of the subsidy in the second Citigroup bail-out was estimated to be 50% of the \$20 billion they received. AIG’s subsidy was estimated to be 63% of the \$40 billion they received. Back of the envelope calculations suggest that the more recent Citigroup subsidy may have been even larger.

There are other large subsidies implicit or explicit in government guarantees for newly issued bonds. Still other subsidies are hidden within the FDIC, when insurance premiums do not accord with actuarial risks. I and many others fear that the Public Private Partnerships will result in the banks being overpaid for some of their risky mortgages; it is again a hidden subsidy tilting the playing field—in favor of the banks that were most engaged in excessively risky practices and that are in the best position to exploit a flawed bail-out program. As I pointed out in my *New York Times* op-ed,² in spite of the rhetoric, this is not about price discovery of the assets as a result of problems of liquidity. What is being priced is an option on the asset, and the value of these options can be much, much larger than the actuarial value of the asset itself, with the difference being paid either by depositors (through FDIC insurance premiums)—and thus potentially, by a massive transfer from our good banks to our bad banks—or by taxpayers, if that proves too onerous, as well it might. Nor is it an ordinary partnership—the private sector gets 50% of the profits, though it puts up only 8% of the money, and yet the government is left bearing the brunt of the losses.

We should recognize that there is no free lunch, and the basic laws of conservation of matter apply in economics as they do in physics. There have been real losses, as loans were made on the basis of a housing bubble. The bubble has now broken, and no expressions of confidence are going to change that. Moving losses from the banks’ balance sheets to the taxpayers or FDIC—even when done in a non-transparent way—does not make them go away. Indeed, because of the adverse incentive effects of the structure of the program, the losses may be increased. Adverse selection and winners’ curse problems may further increase the costs to the taxpayers and depositors. Professor Jeffrey Sachs³ and others have written about the large opportunities for gaming the system. I illustrated this in my *New York Times* article by showing that an asset with a 50-50 chance of either being worth 0 or \$200—so whose actuarial value is \$100—could be purchased by the so-called Partnership at a price of \$150 and still yield a handsome profit for the private partner. Had I had

¹ Liddy, Edward M., “Our Mission at AIG: Repairs, and Repayment,” *Washington Post*, p. A13, March 18, 2009.

² Stiglitz, Joseph E., “Obama’s Ersatz Capitalism,” *New York Times*, p. A31, April 1, 2009.

³ Sachs, Jeffrey, “Obama’s Bank Plan Could Rob the Taxpayer,” *Financial Times*, March 25, 2009.

space, I would have gone on to illustrate an even worse possibility: the bank (or a surrogate of the bank, such as a hedge fund associate) becomes the “partner” with the government and pays \$300 for the asset. In doing so, it converts a risky asset worth, on average, \$100, into a safe asset—it receives net \$284 in both the good and bad outcomes. The government (TARP, FDIC) bears an expected loss of \$184. With so much money being thrown around, we should expect problems.

We need a transparent accounting of the potential losses, based on realistic and worst case scenarios of declines in real estate prices—not based on rosy scenarios suggesting that there will be no declines. Congress should demand a full risk analysis of the potential losses, not just from the TARP program but also from the other actions taken in response to this crisis: the increased coverage of deposit insurance; the guarantee of money markets (which acts as a subsidy to banks through its indirect impact on the commercial paper market); guarantees for bank fixed obligations; the value to the banks of the bail-outs of AIG, Fannie Mae, and Freddie Mac (the banks benefited indirectly as holders of Fannie and Freddie paper and as counterparties in AIG derivative swaps); the subsidies received as a result of the overpaying in the settling of AIG credit default swaps; and the variety of actions taken by the Fed. The Credit Reform Act made it clear that government should not provide guarantees and loans without taking into account an estimate of the losses. This is an important initiative in enhancing transparency in government, and it should apply equally to government agencies, like the FDIC and the Fed. Playing by the rules would have required such an accounting. This Committee should, in addition, ask the CBO for a full analysis of potential losses.

In short, our bail-outs run the risk of transferring large amounts of money, often in nontransparent ways, to those banks that did the worse job in risk management—hardly principles on which normal market economics is based. Among these are some of the too-big-to-fail banks. In effect, the government is tilting the playing field—towards the losers, worsening the tilt that is always there simply from the implicit guarantees associated with being too big to fail. As I argue below, some of these subsidies may be an inevitable consequence of these banks’ too big to fail status, but much of it is not. It has been a matter of policy choice.

The non-transparent way we have been bailing out the banks will almost surely increase the total cost to the economy and to the taxpayer. We have confused two different principles: bailing out the banks and bailing out the bankers, their shareholders, and (possibly) certain categories of bondholders. We could have saved the banks but not the shareholders at a much lower cost than the amount spent. To put it another way, we have confused financial restructuring of an institution with the collapse of the institution. Even an institution which is too big to fail is not too big to be financially restructured.

Inevitably, when an institution fails, there are effects on other institutions. Some of these may need help. Some may themselves be systemically significant. But it is often, perhaps usually, far cheaper to target money where it is needed than to let it trickle down economics. As one looks at the recipients of the largesse given to AIG, relatively little of the money went to institutions that were systemically significant to the U.S., and at least the largest such recipient has claimed that it would not have failed, even had it not received the money. To be sure, it did not turn down the gift.

The way we have conducted the bail-outs has almost surely added to both the budgetary costs and the real economic costs, both those that are being encountered today, and those costs which we will bear in the future.

Regrettably, some of the discussion of regulatory reform has skirted the main issues. There is talk about the need for comprehensive oversight, bringing in the hedge funds. We should remember that the core problems were not with hedge funds; they were with regulations and regulatory enforcement of our big commercial and investment banks. This is what has to be fixed.

Being too big to fail creates perverse incentives for excessive risk taking. The taxpayer bears the loss, while the bondholders, shareholders, and managers get the reward. It also distorts the marketplace in another way: as we have noted, there are hidden subsidies (which have been increased in the current crisis), for instance in deposit insurance, in the government-provided explicit guarantees to newly issued bonds, and in the implicit guarantees to bondholders and shareholders associated with the bail-outs. (Even if the FDIC bears the cost, it does not stay there; ultimately, it gets borne by market participants. Unless a strict “polluter pays” principle is adopted, the costs will be shifted in part to other financial institutions, with consequent distortions to the financial sector.)

What we have seen has long been predicted by economists. The first lesson of economics is that incentives matter. When there are perverse incentives, there are per-

verse outcomes—unless we constrain behavior. We should not have been surprised with what has happened.

Furthermore, this is neither the first failure of our big banks, nor the first bail-out. Their failures to judge creditworthiness have been repeated—in Mexico, in East Asia, in Latin America, in Russia. The only novel aspect of this is that it is the first major bail-out at the expense of the U.S. taxpayer since the S&L debacle. In these bail-outs, there was much discussion of the problem of moral hazard. With each bail-out, it became worse.

With the bail-out of AIG, we have officially announced that any institution which is systemically significant will be bailed out.

We could have reduced the extent of moral hazard had we made an obvious distinction in the subsequent bail-outs between bailing out the banks and bailing out the bankers, their shareholders, and their bondholders. The decisions of both the Obama and Bush Administrations to extend unnecessarily the corporate safety net have meant not only that incentives are more distorted but also that our national debt will be massively larger than it otherwise would have been. Going forward, I think it is imperative that Congress narrow the breadth of this new corporate welfare state. It is people that we should be protecting, not corporations. But even were we to correct what I view to be these grievous mistakes, the problem of too-big-to-fail institutions remains.

There are but two solutions: breaking up the institutions or regulating them heavily. For reasons that I will make clear, we need to do both.

The only justification for allowing these huge institutions to continue is that there are significant economies of scope or scale that otherwise would be lost. I have seen no evidence to that effect. Indeed, as I have suggested, these big banks are not responsible for whatever dynamism there is in the American economy. The touted synergies of bringing together various parts of the financial industry have been a phantasm; more apparent are the conflicts of interest—evidenced so clearly in the Worldcom and Enron scandals earlier this decade. In short, we have little to lose, and much to gain, by breaking up these behemoths, which are not just too big to fail but also too big to save and too big to manage.

Thus, we need to begin now the admittedly gargantuan task of breaking out their commingled activities—insurance companies, investment banking, anything that is not absolutely essential. There needs to be a very heavy burden of proof to show that the economies of scope and scale are large and cannot be achieved in any other way, to justify forcing the public to bear the risk and the market to bear the inevitable distortions.

The recent G-30 report put it well.⁴

Almost inevitably, the complexity of much proprietary capital market activity, and the perceived need for confidentiality of such activities, limits transparency for investors and creditors alike In practice, any approach must recognize that the extent of such risks, potential volatility, and the conflicts of interests will be difficult to measure and control. Experience demonstrates that under stress, capital and credit resources will be diverted to cover losses, weakening protection of client interests. Complex and unavoidable conflicts of interest among clients and investors can be acute. Moreover, to the extent that these proprietary activities are carried out by firms supervised by government and protected from the full force of potential failure there is a strong element of unfair competition with “free-standing” institutions [And] is it really possible, with all the complexities, risks, and potential conflicts, that even the most dedicated board of directors and top management can understand and maintain control over such a diverse and complex mix of activities.

We know that there will be pressures, over time, to soften any regulatory regime. We know that these too-large-to-fail banks also have enormous resources to lobby Congress to deregulate. We have seen it, and we are now suffering as a consequence. This was not an unforeseeable accident. It was predictable and predicted. Accordingly, I think it would be far better to break up these too-big-to-fail institutions and strongly restrict the activities in which they can be engaged than to try to control them.

In short, we need to admit that those that predicted dire consequences to come from the repeal of the Glass-Steagall Act were correct. They warned about conflicts of interest, the increase in concentration of the banking system, with increasing risks of too-big-to-fail institutions—and increasing systemic risk as a result. They

⁴ Group of Thirty, *Financial Reform: A Framework for Financial Stability*, Washington, DC, January 2009.

warned about the consequences of transferring the investment banking culture to the commercial banks, who are entrusted with the management of the payment system and ordinary individuals' savings—insured by the government. The critics suggested that the benefits from economies of scope and scale were exaggerated, and, if present at all, these were almost surely outweighed by the costs. As painful as it may be, we need to revisit these questions. Depression-era regulations may not be appropriate for the twenty-first century, but what was needed was not stripping away regulations but adapting the regulatory system to the new realities, e.g. the enhanced risk posed by derivatives and securitization.

The process of breaking them up may be slow; there may be political resistance—even if the shareholders have not done well, their officers have, and their political contributions have not gone unnoticed. Hence, our regulatory structure must be prepared to deal with any financial institutions that are too big to fail. We cannot allow them to undertake the one-sided bets they have been making. There must be strong restrictions on the kinds of risk-taking positions that they can undertake. None should be allowed to have any off-balance sheet activities. They should not be allowed to have employee (and especially managerial) incentive structures that encourage excessive risk-taking and short-sighted behavior. We should limit credit default swaps and certain other derivatives to exchange traded transactions and to situations where there is an “insurable risk.” We should limit leverage, and capital adequacy standards should adjust to, say, the expansion of portfolios. Elsewhere, Elizabeth Warren has put forth a convincing case for a Financial Products Safety Commission. One of the tasks of such a Commission would be to identify which financial products were safe enough to be held or issued by the too-big-to-fail financial institutions. This is the comprehensive regulatory agenda that I have outlined in previous testimony.⁵ More than oversight is needed; what is needed are strong restrictions on what they can do.

Too big to fail banks should be forced to return to the boring business of doing conventional banking, leaving tasks of risk taking or management to others. There are plenty of other institutions (not depository institutions but smaller, more aggressive companies that are not so big that their failure would bring the entire economy down) that are able to take on risk. Such a reform would increase the efficiency of the economy, because as noted, in current institutional arrangements, the playing field is tilted against stand-alone institutions because of the implicit subsidy given to the too-big-to-fail institutions.

Too-big-to-fail banks are of particular concern because of the added problems of insured depositors. (Too-big-to-fail insurance companies should face corresponding restrictions, e.g. they should be limited to selling conventional insurance products, with well defined actuarial risks.)

The restrictions on their activities may yield low returns—but that is as it should be: the high returns that they earned in the past were the result of risk taken at the expense of American taxpayers. A basic law in economics is that there is no free lunch; higher than normal returns come with risk—and these too-big-to-fail institutions are not the ones that should be undertaking this risk. There are plenty of other institutions in our society to fill the role.

We should, at this point, recognize that for these too-big-to-fail institutions, we taxpayers are a peculiar implicit owner: we share in any (tax reported) profits (they are often clever not only in accounting and regulatory arbitrage but also in tax arbitrage), but we bear a disproportionate share of the losses. However, we have little control over what they do. Given our implicit stake, we should demand the highest standards of corporate governance, including full expensing of stock options.

What I am arguing for is a variant of what is sometimes called the Public Utility Model. The too-big-to-fail banks should be put at the center of a new electronic payment system that will use modern technology to provide a twenty-first century payment system (at low costs) for America. They should not be allowed to engage in the predatory credit card practices that have become commonplace. We should have a twenty-first century efficient and fair credit system to correspond to our twenty-first century electronic payment mechanism. The too-big-to-fail banks should also be required to provide banking services to underserved communities—and at prices and terms that are competitive, reflecting actual costs.

Nor does it make sense, as we have been doing, to force those banks that have been performing the job of real-banking to pay for the losses of the too-big-to-fail banks. It is neither equitable nor efficient. With bonds guaranteed by the FDIC, we are, in effect, forcing all depositors, including those in good banks, to bear at the very least some of the risk and costs associated with the mistakes of our banks that

⁵ Stiglitz, Joseph, Testimony at the Regulatory Reform Hearing, Congressional Oversight Panel, January 14, 2009.

are too big to fail. They should bear this cost, e.g. in the form of a special tax imposed on profits, dividend distributions, bonuses, and interest payments on bonds. (If we can make a credible commitment not to bail out bondholders—demonstrated by allowing the current bondholders to take a haircut—the latter should be exempted. Given our current policy stance, they should not be.)

In environmental economics there is the basic principle of the polluter pays. Those who pollute must pay the cost of clean-up. It is a matter of efficiency and equity. The too big-to-fail institutions have contributed to the pollution of the global economy with toxic mortgages; they should now pay for the cost of clean-up.

One of the disturbing aspects of the recent bail-outs is the absence of a clear set of criteria—and a seeming inconsistency in practice. Ten years ago, many argued that it was appropriate for the government to take a key role in the bail-out of Long Term Capital Management, a hedge fund, because it was too big to fail—this after claims had been made that no hedge fund was large enough to pose systemic risk.

The list of those that received AIG money includes many who did not pose systemic risk to the U.S., suggesting that it may have been far cheaper to target money to those that posed systemic risk; certainly, such a policy could have been designed to ensure a far higher expected return to Treasury than the strategy chosen.

Before a crisis, every financial institution will claim that it does not pose systemic risk; in a crisis, almost all (and those that would be affected by a collapse) will make such claims. Recognizing this, we must take a precautionary approach: a systemically significant firm is any whose failure, alone or in conjunction with other firms following similar investment strategies, would lead to a cascade of effects significant enough to justify government intervention.

If those in the financial market continue to insist, as they have been, that allowing any major bank to go under would lead to a cascade of effects simply because of fears that it might induce among bondholders, the reach of institutions that fall within the rubric of “too-big-to-fail” needs to be greatly broadened. One cannot have it both ways: claim that we need only to regulate tightly the largest institutions that are too big to fail, and claim at the same time that a bankruptcy of any large institution would lead to a cascade of effects through market expectations. If the taxpayer is told he must pony up billions of dollars because allowing bondholder interests, or even shareholder interests, to be diminished as they would under normal rules of a market economy, then the net of strong regulation has to be correspondingly wide.

We should recognize too that systemic significance is not only related to the size of the firm itself but also to its interconnectedness with the rest of the economy, and that a firm which is not systemically significant could easily turn into one. Even a small firm may be systemically significant. It was only a small part of AIG that was responsible for posing systemic risk. It might have done so as a stand-alone institution. Hence, we will have to impose analogous restrictions, perhaps slightly softened, on any financial institution that could turn into a too-big-to-fail institution. This is one of the reasons that regulation and oversight have to be comprehensive. (The mathematics of ascertaining systemic importance is complicated, but today, with adequate reporting requirements, we have the tools to do a far better job than in the past.)

One of the quandaries we face going forward is that any restrictions on the banking system will encourage the development of a shadow-banking system. This is another reason why any regulatory system has to be comprehensive and flexible—flexible in extending the net of tight regulation to any new institutions or markets that represent systemic risk. However, there should be no flexibility in relaxing the net of regulation in response, perhaps, to some mistaken belief that markets are self-regulating (as we did during the past quarter century) on old institutions that continue to pose systemic risk.

Even if we regulate our too-big-to-fail institutions reasonably well, some of them will fail. Of course, if we don’t regulate them well—as we have not—failures will be more frequent. How we handle these failures is important. If we continue on the current path, it will increase the risk of moral hazard and will encourage excessive risk taking. We need to have a clear rule book, and we need to play by the rules. We know that in the next crisis, financial markets will again point a gun at our head, threatening the end of the world unless there is a massive bail-out. Never again, however, should we confuse bailing out the banks with bailing out the bankers and their shareholders.

I applaud the Administration in their efforts to get stronger resolution powers. An appropriately designed system, fairly implemented, might enable government to take prompt corrective action—before a calamity is on us—and, by forcing shareholders and bondholders to absorb the losses before imposing burdens either on taxpayers or the FDIC, might mitigate problems of moral hazard.

Not only would such a system improve incentives, it might also address one of the concerns that is leading to such demoralization of the public—the appearance of selective enforcement of rules, of double standards, of some institutions and sectors being treated in a preferential way, perhaps not uncoincidentally, related to campaign contributions.

We should recognize that, in a sense, the too-big-to-fail institutions have succeeded in managing their risk well—but not in the way advertised. A relatively small investment in campaign contributions (the combined campaign contributions of U.S. financial, insurance, and real-estate firms has been estimated at around \$5 billion over the past decade) has succeeded in transferring losses to the public, estimated well in excess of a trillion dollars.

There will be those who argue that this regulatory regime will stifle innovation. However, a disproportionate part of the innovations in our financial system have been aimed at tax, regulatory, and accounting arbitrage. They did not produce innovations which would have helped our economy manage some critical risks better—like the risk of home ownership. In fact, their innovations made things worse. I believe that a well-designed regulatory system, along the lines I've mentioned, will be more competitive and more innovative—with more of the innovative effort directed at innovations which will enhance the productivity of our firms and the well-being, including the economic security, of our citizens.

PREPARED STATEMENT OF DR. SIMON JOHNSON¹

The depth and suddenness of the U.S. economic and financial crisis today are strikingly and shockingly reminiscent of experiences we have seen recently only in emerging markets: Korea in 1997, Malaysia in 1998 and even Russia and Argentina, repeatedly.

The common factor in those emerging market crises was a moment when global investors suddenly became afraid that the country in question wouldn't be able to pay off its debts, and stopped lending money overnight. In each case, the fear became self-fulfilling, as banks unable to roll over their debt did, in fact, become unable to pay off all their creditors.

This is precisely what drove Lehman Brothers into bankruptcy on September 15, and the result was that, overnight, all sources of funding to the U.S. financial sector dried up. From that point, the functioning of the banking sector has depended on the Federal Reserve to provide or guarantee the necessary funding. And, just like in emerging markets crises, the weakness in the banking system has quickly rippled out into the real economy, causing a severe economic contraction and hardship for millions of people.

This testimony examines how the United States became more like an emerging market, the politics of a financial sector with banks that are now “too big to fail,” and what this implies for policy—particularly, the pressing need to apply existing antitrust laws to big finance.

HOW COULD THIS HAPPEN?

The US has always been subject to booms and busts. The dotcom craze of the late 1990s is a perfect example of our usual cycle; many investors got overexcited and fortunes were lost. But at the end of the day we have the Internet which, like it or not, profoundly changes the way we organize society and make money. The same thing happened in the 19th century with waves of investment in canals, railroad, oil, and any number of manufacturing industries.

This time around, something was different. Behind the usual ups and downs during the past 25 or so years, there was a long boom in financial services—something you can trace back to the deregulation of the Reagan years, but which got a big jolt from the Clinton Administration's refusal to regulate derivatives market effectively and the failure of bank regulation under Alan Greenspan and the George W. Bush Administration. Finance became big relative to the economy, largely because of these political decisions, and the great wealth that this sector created and concentrated in turn gave bankers enormous political weight.

This political weight had not been seen in the US since the age of J. P. Morgan (the man). In that period, the banking panic of 1907 could only be stopped by coordination among private-sector bankers, because there was no government entity able to offer an effective counterweight. But the first age of banking oligarchs came to

¹ This testimony draws on joint work with James Kwak, particularly “The Quiet Coup” (*The Atlantic*, May 2009), and with Peter Boone. Our updates and detailed policy assessments are available daily at <http://BaselineScenario.com>.

an end with the passage of significant banking regulation during and in response to the Great Depression. But the emergence of a financial oligarchy during a long boom is typical of emerging markets.

There were, of course, some facilitating factors behind the crisis. Top investment bankers and government officials like to lay the blame on low U.S. interest rates after the dotcom bust, or even better—for them—the flow of savings out of China. Some on the right of the spectrum like to complain about Fannie Mae or Freddie Mac, or even about longer-standing efforts to promote broader home ownership. And, of course, it is axiomatic to everyone that the regulators responsible for “safety and soundness” were fast asleep at the wheel.

But these various policies—lightweight regulation, cheap money, the unwritten Chinese-American economic alliance, the promotion of homeownership—had something in common, even though some are traditionally associated with Democrats and some with Republicans: they all benefited the financial sector. The underlying problem was that policy changes that might have limited the ability of the financial sector to make money—such as Brooksley Born’s attempts at the Commodity Futures Trading Commission to regulate over-the-counter derivatives such as credit default swaps—were ignored or swept aside.

Big banks enjoyed a level of prestige that allowed them to do what they liked, for example with regard to “risk management” systems that allowed them to book large profits (and pay large bonuses) while taking risks that would be borne in the future—and by the rest of society. Regulators, legislators, and academics almost all assumed the managers of these banks knew what they were doing. In retrospect, of course, they didn’t.

Stanley O’Neal, CEO of Merrill Lynch, pushed his firm heavily into the mortgage-backed securities market at its peak in 2005 and 2006; in October 2007, he was *forced to say*, “The bottom line is we . . . I . . . got it wrong by being overexposed to subprime, and we suffered as a result of impaired liquidity . . . in that market. No one is more disappointed than I am in that result.” (O’Neal earned a \$14 million *bonus in 2006*; forced out in October 2007, he walked away with a severance package worth *over \$160 million*, although it is presumably worth much less today.)

At the same time, AIG Financial Products earned over *\$2 billion in pretax profits* in 2005, largely by selling underpriced insurance on complex, poorly-understood securities. Often described as “picking up nickels in front of a steamroller,” this strategy is highly profitable in ordinary years, and disastrous in bad years. As of last fall, AIG had outstanding insurance on over \$500 billion of securities. To date, the U.S. government has committed close to \$200 billion in investments and loans in an effort to rescue AIG from losses largely caused by this one division—and which its *sophisticated risk models* said would not occur.

“Securitization” of subprime mortgages and other high-risk loans created the illusion of diversification. While we should never underestimate the human capacity for self-delusion, what happened to all our oversight mechanisms? From top to bottom, executive, legislative and judicial, were effectively captured, not in the sense of being coerced or corrupted, but in the equally insidious sense of being utterly convinced by whatever the banks told them. Alan Greenspan’s pronouncements in favor of unregulated financial markets have been echoed numerous times. But this is what the man who succeeded him *said in 2006*: “The management of market risk and credit risk has become increasingly sophisticated . . . banking organizations of all sizes have made substantial strides over the past two decades in their ability to measure and manage risks.”

And they were captured (or completely persuaded) by exactly the sort of elite that dominates an emerging market. When a country like Indonesia or Korea or Russia grows, some people become rich and more powerful. They engage in some activities that are sensible for the broader economy, but they also load up on risk. They are masters of their mini-universe and they reckon that there is a good chance their political connections will allow them to “put” back to the government any substantial problems that arise. In Thailand, Malaysia, and Indonesia prior to 1997, the business elite was closely interwoven with the government; and for many of the oligarchs, the calculation proved correct—in their time of need, public assistance was forthcoming.

This is a standard way to think about middle income or low income countries. And there are plenty of Americans who are also comfortable with this as a way of describing how some West European countries operate. Unfortunately, this is also essentially how the U.S. operates today.

Of course, the U.S. is unique. And just as we have the most advanced economy, military, and technology in the world, we also have the most advanced oligarchy.

In a primitive political system, power is transmitted through violence, or the threat of violence: military coups, private militias, etc. In a less primitive system more typical of emerging markets, power is transmitted via money: bribes, kickbacks, and offshore bank accounts. Although lobbying and campaign contributions certainly play a major role in the American political system, old-fashioned corruption—envelopes stuffed with \$100 bills—is probably a sideshow today, Jack Abramoff notwithstanding.

Instead, the American financial industry gained political power by amassing a kind of cultural capital—a belief system. Once, perhaps, what was good for General Motors was good for the United States. In the last decade, the attitude took hold in the U.S. that what was good for Big Finance on Wall Street was good for the United States. The banking and securities industry has become one of the top contributors to political campaigns, but at the peak of its influence it did not have to buy favors the way, for example, the tobacco companies or military contractors might have to. Instead, it benefited from the fact that Washington insiders already believed that large financial institutions and free-flowing capital markets were critical to America's position in the world.

One channel of influence was, of course, the flow of individuals between Wall Street and Washington. Robert Rubin, co-chairman of Goldman Sachs, served in Washington as Treasury Secretary under President Clinton, and later became chairman of the executive committee of Citigroup. Henry Paulson, CEO of Goldman Sachs during the long boom, became Treasury Secretary under President George W. Bush. John Snow, an earlier Bush Treasury Secretary, left to become chairman of Cerberus Capital Management, a large private equity firm that also counts Vice President Dan Quayle among its executives. President George H. W. Bush has been an advisor to the Carlyle Group, another major private equity firm. Alan Greenspan, after the Federal Reserve, became a consultant to PIMCO, perhaps the biggest player on international bond markets.

These personal connections—which were multiplied many times over on lower levels of the last three presidential administrations—obviously contributed to the alignment of interests between Wall Street and Washington.

Wall Street itself is a very seductive place, imbued with an aura not only of wealth but of power. The people who man its towers truly believe that they control the levers that make the world go 'round, and a civil servant from Washington invited into their conference rooms, even if just for a meeting, could be forgiven for falling under its sway.

The seduction extended even (or especially) to finance and economics professors, historically confined to the cramped hallways of universities and the pursuit of Nobel Prizes. As mathematical finance became more and more critical to practical finance, professors increasingly took positions as consultants or partners at financial institutions. The most famous example is probably Myron Scholes and Robert Merton, Nobel Laureates both, taking positions at Long-Term Capital Management, but there are many others. One effect of this migration was to lend the stamp of academic legitimacy (and intellectual intimidation) to the burgeoning world of high finance.

Why did this happen, and why now? America is a country that has always been fascinated with rather than repelled by wealth, where people aspire to become rich, or at least associate themselves with the rich, rather than redistribute their wealth downward. And roughly from the 1980s, more and more of the rich have made their money in finance.

There are various reasons for this evolution. Beginning in the 1970s, several factors upset the relatively sleepy world of banking—taking deposits, making commercial and residential loans, executing stock trades, and underwriting debt and equity offerings. The *deregulation of stock brokerage commissions in 1975* increased competition and stimulated participation in stock markets. In *Liar's Poker*, Michael Lewis singles out Paul Volcker's monetary policy and increased volatility in interest rates: this, Lewis argues, made bond trading much more popular and lucrative and, it is true, the markets for bonds and bond-like securities have been where most of the action has been in recent decades. Good old-fashioned innovation certainly played its part: the invention of securitization in the 1970s (and the ability of Salomon Brothers to make outsized amounts of money in mortgage-backed securities in the 1980s), as well as the invention of interest-rate swaps and credit default swaps, vastly increased the volume of transactions that bankers could make money on. Demographics helped: an aging and increasingly wealthy population invested

more and more money in securities, helped by the invention of the IRA and the 401(k) plan, again boosting the supply of the raw material from which bankers make money. These developments together vastly increased the opportunities to make money in finance.

Not surprisingly, financial institutions started making a lot more money, beginning in the mid-1980s. 1986 was the first year in the postwar period that the financial sector earned 19% of total domestic corporate profits. In the 1990s, that figure oscillated between 21% and 30%; this decade, it reached as high as 41%. The impact on compensation in the financial sector was even more dramatic. From 1948 to 1982, average compensation in the financial sector varied between 99% and 108% of the average for all domestic private industries. From 1983, it shot upward in nearly a straight line, reaching 181% in 2007.

The results were simple. Jobs in finance became more prestigious, people in finance became more prestigious, and the cult of finance seeped into the culture at large, through works like *Liar's Poker*, *Barbarians at the Gate*, *Wall Street*, and *Bonfire of the Vanities*. Even the convicted criminals, like Michael Milken and Ivan Boesky, became larger than life. In a country that celebrates the idea of making money, it was easy to infer that the interests of the financial sector were the same as the interests of the country as a whole—and that the winners in the financial sector knew better what was good for America than career civil servants in Washington.

As a consequence, there was no shadowy conspiracy that needed to be pursued in secrecy. Instead, it became a matter of conventional wisdom—trumpeted on the editorial pages of *The Wall Street Journal* and in the popular press as well as on the floor of Congress—that financial free markets were good for the country as a whole. As the buzz of the dotcom bubble wore off, finance and real estate became the new American obsession. Private equity firms became the destination of choice for business students and hedge funds became the surefire way to make not millions but tens of millions of dollars. In America, where wealth is less resented than celebrated, the masters of the financial universe became objects of admiration or even adulation.

The deregulatory policies of the past decade flowed naturally from this confluence of campaign finance, personal connections, and ideology: insistence on free flows of capital across borders; repeal of the Depression-era regulations separating commercial and investment banking; a Congressional ban on the regulation of credit default swaps; major increases in the amount of leverage allowed to investment banks; a general abdication by the Securities and Exchange Commission of its enforcement responsibilities; an international agreement to allow banks to measure their own riskiness; a short-lived proposal to partially privatize social security; and, most banally but most importantly, a general failure to keep pace with the tremendous pace of innovation in financial markets.

AMERICAN OLIGARCHS AND THE FINANCIAL CRISIS

The oligarchy and the government policies that aided it did not alone cause the financial crisis that exploded last year. There were many factors that contributed, including excessive borrowing by households and lax lending standards out on the fringes of the financial world. But major commercial and investment banks—and their fellow travelers—were the big beneficiaries of the twin housing and asset bubbles of this decade, their profits fed by an ever-increasing volume of transactions founded on a small base of actual physical assets. Each time a loan was sold, packaged, securitized, and resold, banks took their transaction fees, and the hedge funds buying those securities reaped ever-larger management fees as their assets under management grew.

Because everyone was getting richer, and the health of the national economy depended so heavily on growth in real estate and finance, no one in Washington had the incentive to question what was going on. Instead, Fed Chairman Greenspan and President Bush insisted repeatedly that the economy was fundamentally sound and that the tremendous growth in complex securities and credit default swaps were symptoms of a healthy economy where risk was distributed safely.

In summer 2007, the signs of strain started appearing—the boom had produced so much debt that even a small global economic stumble could cause major problems. And from then until the present, the financial sector and the federal government have been behaving exactly the way one would expect after having witnessed emerging market financial crises in the past.

In a financial panic, the critical ingredients of the government response must be speed and overwhelming force. The root problem is uncertainty—in our case, uncertainty about whether the major banks have sufficient assets to cover their liabilities.

Half measures combined with wishful thinking and a wait-and-see attitude are insufficient to overcome this uncertainty. And the longer the response takes, the longer that uncertainty can sap away at the flow of credit, consumer confidence, and the real economy in general—ultimately making the problem much harder to solve.

Instead, however, the principal characteristics of the government's response to the financial crisis have been denial, lack of transparency, and unwillingness to upset the financial sector.

First, there was the prominent place of policy by deal: when a major financial institution, got into trouble, the Treasury Department and the Federal Reserve would engineer a bailout over the weekend and announce that everything was fine on Monday. In March 2008, there was the sale of Bear Stearns to JPMorgan Chase, which looked to many like a gift to JPMorgan. The deal was brokered by the Federal Reserve Bank of New York—which includes Jamie Dimon, CEO of JPMorgan, on its board of directors. In September, there were the takeover of Fannie Mae and Freddie Mac, the sale of Merrill Lynch to Bank of America, the decision to let Lehman fail, the destructive bailout of AIG, the takeover and immediate sale of Washington Mutual to JPMorgan, and the bidding war between Citigroup and Wells Fargo over the failing Wachovia—all of which were brokered by the government. In October, there was the recapitalization of nine large banks on the same day behind closed doors in Washington. This was followed by additional bailouts for Citigroup, AIG, Bank of America, and Citigroup (again).

In each case, the Treasury Department and the Fed did not act according to any legislated or even announced principles, but simply worked out a deal and claimed that it was the best that could be done under the circumstances. This was late-night, back-room dealing, pure and simple.

What is more telling, though, is the extreme care the government has taken not to upset the interests of the financial institutions themselves, or even to question the basic outlines of the system that got us here.

In September 2008, Henry Paulson asked for \$700 billion to buy toxic assets from banks, as well as unconditional authority and freedom from judicial review. Many economists and commentators suspected that the purpose was to overpay for those assets and thereby take the problem off the banks' hands—indeed, that is the only way that buying toxic assets would have helped anything. Perhaps because there was no way to make such a blatant subsidy politically acceptable, that plan was shelved.

Instead, the money was used to recapitalize (buy shares in) banks—on terms that were grossly favorable to the banks. For example, Warren Buffett put new capital into Goldman Sachs just weeks before the Treasury Department invested in nine major banks. Buffett got a higher interest rate on his investment and a much better deal on his options to buy Goldman shares in the future.

As the crisis deepened and financial institutions needed more assistance, the government got more and more creative in figuring out ways to provide subsidies that were too complex for the general public to understand. The first AIG bailout, which was on relatively good terms for the taxpayer, was renegotiated to make it even more friendly to AIG. The second Citigroup and Bank of America bailouts included complex asset guarantees that essentially provided nontransparent insurance to those banks at well below-market rates. The third Citigroup bailout, in late February 2009, converted preferred stock to common stock at a conversion price that was significantly higher than the market price—a subsidy that probably even most *Wall Street Journal* readers would miss on first reading. And the convertible preferred shares that will be provided under the new Financial Stability Plan give the conversion option to the bank in question, not the government—basically giving the bank a valuable option for free.

One problem with this velvet-glove strategy is that it was simply inadequate to change the behavior of a financial sector used to doing business on its own terms. As an unnamed senior bank official said to *The New York Times*, “It doesn't matter how much Hank Paulson gives us, no one is going to lend a nickel until the economy turns.”

At the same time, the princes of the financial world assumed that their position as the economy's favored children was safe, despite the wreckage they had caused. John Thain, in the midst of the crisis, asked his board of directors for a \$10 million bonus; he withdrew the request amidst a firestorm of protest after it was leaked to the *Wall Street Journal*. Merrill Lynch as a whole was no better, moving its bonus payments *forward to December*, reportedly (although this is disputed) to avoid the possibility they would be reduced by Bank of America, which would own Merrill beginning on January 1.

This continued solicitousness for the financial sector might be surprising coming from the Obama Administration, which has otherwise not been hesitant to take ac-

tion. The \$800 billion fiscal stimulus plan was watered down by the need to bring three Republican senators on board and ended up smaller than many hoped for, yet still counts as a major achievement under our political system. And in other ways, the new administration has pursued a progressive agenda, for example in signing the Lilly Ledbetter law making it easier for women to sue for discrimination in pay and moving to significantly increase the transparency of government in general (but not vis-a-vis its dealings with the financial sector).

What it shows, however, is that the power of the financial sector goes far beyond a single set of people, a single administration, or a single political party. It is based not on a few personal connections, but on an ideology according to which the interests of Big Finance and the interests of the American people are naturally aligned—an ideology that assumes the private sector is always best, simply because it is the private sector, and hence the government should never tell the private sector what to do, but should only ask nicely, and maybe provide some financial handouts to keep the private sector alive.

To those who live outside the Treasury-Wall Street corridor, this ideology is increasingly not only at odds with reality, but actually dangerous to the economy.

THE WAY OUT

Looking just at the financial crisis (and leaving aside some problems of the larger economy), we face at least two major, interrelated problems. The first is a desperately ill banking sector that threatens to choke off any incipient recovery that the fiscal stimulus might be able to generate. The second is a network of connections and ideology that give the financial sector a veto over public policy, even as it loses popular support.

That network, it seems, has only gotten stronger since the crisis began. And this is not surprising. With the financial system as fragile as it is, the potential damage that a major bank could cause—Lehman was small relative to Citigroup or Bank of America—is much greater than it would be during ordinary times. The banks have been exploiting this fear to wring favorable deals out of Washington. Bank of America obtained its second bailout package (in January 2009) by first threatening not to go through with the acquisition of Merrill Lynch—a prospect that Treasury did not want to consider.

In some ways, of course, the government has already taken control of the banking system. Since the market does not believe that bank assets are worth more than their liabilities—at least for several large banks that are a large proportion of the overall system—the government has already essentially guaranteed their liabilities. The government has already sunk hundreds of billions of dollars into banks. The government is the only plausible source of capital for the banks today. And the Federal Reserve has taken on a major role in providing credit to the real economy. We have state control of finance without much control over banks or anything else—we can try to limit executive compensation, but we don't get to replace boards of directors and we have no say in who really runs anything.

One solution is to scale-up the standard FDIC process. A Federal Deposit Insurance Corporation (FDIC) “intervention” is essentially a government-managed bankruptcy procedure for banks. Organizing systematic tough assessments of capital adequacy, followed by such interventions, would simplify enormously the job of cleaning up the balance sheets of the banking system. The problem today is that Treasury negotiates each bailout with the bank being saved, yet Treasury is paradoxically—but logically, given their anachronistic belief system—behaving as if the bank holds all the cards, contorting the terms of the deal to minimize government ownership while forswearing any real influence over the bank.

Cleaning up bank balance sheets cannot be done through negotiation. Everything depends on the price the government pays for those assets, and the banks' incentive is to hold up the government for as high a price as possible. Instead, the government should thoroughly inspect the banks' balance sheets and determine which cannot survive a severe recession (the current “stress tests” are fine in principle but not tough enough in practice). These banks would then face a choice: write down your assets to their true value and raise private capital within thirty days, or be taken over by the government. The government would clean them up by writing down the banks' toxic assets—recognizing reality, that is—and transferring those to a separate government entity, which would attempt to salvage whatever value is possible for the taxpayer (as the Resolution Trust Corporation did after the Savings and Loan debacle of the 1980s).

This would be expensive to the taxpayer; according to the latest IMF numbers, the bank clean-up itself would probably cost close to \$1.5 trillion (or 10% of our GDP) in the long term. But only by taking decisive action that exposes the full ex-

tent of the financial rot and restores some set of banks to publicly verifiable health can the paralysis of the financial sector be cured.

But the second challenge—the power of the oligarchy—is just as important as the first. And the advice from those with experience in severe banking crises would be just as simple: break the oligarchy.

In the U.S., this means breaking up the oversized institutions that have a disproportionate influence on public policy. And it means splitting a single interest group into competing subgroups with different interests. How do we do this?

First, bank recapitalization—if implemented right—can use private equity interests against the powerful large bank insiders. The banks should be sold as going concerns and desperately need new powerful shareholders. There is a considerable amount of wealth “on the sidelines” at present, and this can be enticed into what would essentially be reprivatization deals. And there are plenty of people with experience turning around companies who can be brought in to shake up the banks.

The taxpayer obviously needs to keep considerable upside in these deals, and there are ways to structure this appropriately without undermining the incentives of new controlling shareholders. But the key is to split the oligarchy and set the private equity part onto sorting out the large banks.

The second step is somewhat harder. You need to force the new private equity owners of banks to break them up, so they are no longer too big to fail—and making it harder for the new oligarchs to blackmail the government down the road. The major banks we have today draw much of their power from being too big to fail, and they could become even more dangerous when run by competent private equity managers.

Ideally, big banks should be sold in medium-sized pieces, divided regionally or by type of business, to avoid such a concentration of power. If this is practically infeasible—particularly as we want to sell the banks quickly—they could be sold whole, but with the requirement of being broken up within a short period of time. Banks that remain in private hands should also be subject to size limitations.

This may seem like a crude and arbitrary step, but it is the most direct way to limit the power of individual institutions, especially in a sector that, the last year has taught us, is even more critical to the economy as a whole than anyone had imagined. Of course, some will complain about “efficiency costs” from breaking up banks, and they may have a point. But you need to weigh any such costs against the benefits of no longer having banks that are too big to fail. Anything that is “too big to fail” is now “too big to exist.”

To back this up, we quickly need to overhaul our anti-trust framework. Laws that were put in place over 100 years ago, to combat industrial monopolies, need to be reinterpreted (and modernized) to prevent the development of financial concentrations that are too big to fail. The issue in the financial sector today is not about having enough market share to influence prices, it is about one firm or a small set of interconnected firms being big enough so that their self-destruction can bring down the economy. The Obama Administration’s fiscal stimulus invokes FDR, but we need at least equal weight on Teddy Roosevelt-style trust-busting.

Third, to delay or deter the emergence of a new oligarchy, we must go further: caps on executive compensation—for all banks that receive any form of government assistance, including from the Federal Reserve—can play a role in restoring the political balance of power. While some of the current impetus behind these caps comes from old-fashioned populism, it is true that the main attraction of Wall Street—to the people who work there, to the members of the media who spread its glory, and to the politicians and bureaucrats who were only too happy to bask in that reflected glory—was the astounding amount of money that could be made. To some extent, limiting that amount of money would reduce the allure of the financial sector and make it more like any other industry.

Further regulation of behavior is definitely needed; there will be costs, but think of the benefits to the system as a whole. In the long run, the only good solution may be better competition—finally breaking the non-competitive pricing structures of hedge funds, and bringing down the fees of the asset management and banking industry in general. To those who say this would drive financial activities to other countries, we can now safely say: fine.

Of course, all of this is at best a temporary solution. The economy will recover some day, and Wall Street will be there to welcome the most financially ambitious graduates of the world’s top universities. The best we can do is put in place structural constraints on the financial sector—antitrust rules and stronger regulations—and hope that they are not repealed amidst the euphoria of a boom too soon in the future. In the meantime, we can invest in education, research, and development with the goal of developing new leading sectors of our economy, based on technological rather than financial innovation.

In a democratic capitalist society, political power flows towards those with economic power. And as society becomes more sophisticated, the forms of that power also become more sophisticated. Until we come up with a form of political organization that is less susceptible to economic influences, oligarchs—like booms and busts—are something that we must account for and be prepared for. The crucial first step is recognizing that we have them.

PREPARED STATEMENT OF THOMAS M. HOENIG

Madam Chair Maloney, Vice Chair Schumer, ranking members Brady and Brownback, and members of the committee, I appreciate the opportunity to talk with you about the issues surrounding the exceptionally large financial institutions whose failure may pose systemic threats to the financial system.

The United States currently faces economic turmoil related directly to a loss of confidence in these large institutions. Although the response to the events of the past year has taken on various forms, so far, we have not seen the return of confidence and transparency to financial markets, leaving lenders and investors wary of making new commitments. Until that faith is restored, it is impossible for us to achieve full economic recovery.

When the crisis began to unfold last year, and its full depth was not yet clear, we were quick to pump substantial liquidity into the system. In the world we find today, with the crisis continuing and hundreds of thousands of Americans losing their jobs every month, it remains tempting to pour additional funds into these institutions in hopes of a turnaround. We have taken these steps instead of defining a consistent plan or addressing the core issue of how to deal with these institutions that now block our path to recovery. Our actions so far risk prolonging the crisis while increasing the cost and raising serious questions about how we eventually unwind these programs without creating another financial crisis as bad or worse than the one we currently face.

These large and systemically important institutions are regularly referred to as “too big to fail,” but yet we all know that a free market system requires that insolvent firms, regardless of their size, market position or the complexity of their operations, must fail. We have been unwilling to allow this to happen to these firms, ignoring that we have an existing mechanism that can be used for firms of all sizes and allows for their dissolution while controlling damage to the broader financial system.

There seems to be a prevalent line of thinking that the problems we now face with these institutions are simply too complex for us to resolve without widespread damage to the financial system. I don’t think those who managed the Reconstruction Finance Corporation, the Resolution Trust Corporation or the Swedish financial crisis were provided with a blueprint that guaranteed their success. And though I would be the first to acknowledge that the path I propose is not easy, I do not accept the idea that we have lost our ability to solve the challenges we now face.

This system has a proven track record in the United States as well as abroad and it would serve us well in the current crisis. I have included in this written testimony the text of a speech I delivered recently in Tulsa, Okla., that spells out the details of how this program would work. Additionally, I have included supplementary information including further details related to the resolution framework for large institutions; the process used to handle the 1984 failure; of Continental Illinois, which was one of our nation’s largest financial institutions at the time of its failure, and the approach Sweden took in response to that nation’s banking crisis in the 1990s, which is very similar in many ways to what we face in the United States today.

In addition to the current turmoil, from a regulatory perspective we must also make the changes necessary to protect the financial system from a similar crisis in the future. For some time, there has been an ongoing debate in the regulatory community pitting proponents of a broad principles-based approach against those favoring a more rigid rules-based system that can be widely understood and more readily, and evenly, enforced. The current crisis has made the case that the rules system is our only alternative, as the principles-based approach leaves far too much open for the discretion of the firms in question and not enough authority for the various regulatory agencies.

Along these same lines, this crisis has been the first real test of the Basel II capital framework, and it has failed miserably. Basel II relies on firms making their own detailed assessments of the risks they have assumed so a capital requirement can be assigned. I would doubt any of us today would believe such a system to be desirable or even workable.

Enforcement under Basel II relies on examiners understanding and evaluating extremely complex mathematical models. When it becomes clear that these models understate capital needs, examiners often have difficulty arguing the technical merits of their views and convincing bank management to add capital. In many ways, Basel II provides banks with a rationale, a defense and an opportunity for taking excessive leverage. Banks have strong competitive and financial incentives to increase leverage. During good times, leverage increases profitability, but it also increases risk. We have seen the broad systemic effects of excessive leverage. To limit such problems in the future, we must maintain limits on financial leverage through strict rules setting minimum capital-to-asset ratios. It would be the easiest, most equitable and clear-cut way to set capital requirements for all sizes of banks and for a broader range of firms throughout financial markets.

One of the more troubling aspects of this crisis has been that in many ways these events have not been unpredictable. A decade ago, I and others anticipated that the financial megamergers we were seeing at that time would lead to a situation like the one we face today.

Although we did not have any way of knowing the events that would provide the stimulus for this crisis, there were already concerns in 1999 that, "In a world dominated by mega financial institutions, governments could be reluctant to close those that become troubled for fear of systemic effects on the financial system. To the extent these institutions become 'too big to fail,' and where uninsured depositors and other creditors are protected by implicit government guarantees, the consequences can be quite serious. Indeed, the result may be a less stable and a less efficient financial system."¹

This is clearly the result we now face, and it is even more pressing that we deal with the problem at hand in a manner that brings stability and transparency back into our system for the current environment or it is a certainty that this is an environment in which we will find ourselves yet again.

SUCCESS DEPENDS ON FAILURE

(Thomas M. Hoenig, President and Chief Executive Officer, Federal Reserve Bank of Kansas City, Kansas City, MO)

As you all know, we are in the middle of a very serious financial crisis, and our economy is under significant stress. There has been much debate about how we should address these challenges, but regardless of the method one supports, all agree that the economy will not recover until the financial system is stabilized and credit flows improve.

The restoration of normal financial market activity depends on how we deal with the problems of our largest financial institutions. It has been a little more than a year since the first major government rescue occurred with Bear Stearns being acquired by JPMorgan. Since then, numerous programs have been enacted and trillions of dollars of public funds have been committed, much of it directly to our largest institutions. Despite these well-intentioned efforts, the problems remain, and the public's dissatisfaction with how their money is being spent grows.

It is not surprising that the initial measures taken in this crisis were ad hoc. The depth and extent of the problems were not anticipated. However, more than a year has passed and the challenge that still remains is to define a plan that addresses the significant asset problems embedded in our largest institutions. We must provide financial firms, investors and consumers with a clear and fair plan for dealing with firms that many call "too big to fail."

Last month, I gave a speech that outlined a resolution framework and a plan for how we should deal with these large systemically important financial firms. I believe that failure is an option. Those who disagree with my resolution proposal say that it is unworkable. In my remarks today, I will offer more details about how the process would work and explain why I think it is the best solution for getting our financial system and economy on the road to recovery.

PRINCIPLES FOR A RESOLUTION FRAMEWORK

For a free market system to be successful, firms must be allowed to fail based upon a predefined set of rules and principles that market participants can rely on when determining their strategies and making decisions. This is particularly important for problem financial institutions. These key principles should apply if we are

¹ "Financial Industry Megamergers and Policy Challenges," speech by Thomas M. Hoenig, delivered March 25, 1999. Accessible at www.KansasCityFed.org/home/subwebnav.cfm?level=3&theID=9983&SubWeb=6.

talking about a small bank in Tulsa or a large international financial conglomerate in New York City.

The first principle is to properly understand our goals and correctly identify the problems we are attempting to solve. This may sound obvious. However, when we are in the middle of a crisis where more than a half million people are losing their jobs every month, it is tempting to pour money into the institutions thinking that it will correct the problem and get credit flowing once again. Also, rather than letting the market system objectively discipline the firms through failure and stockholder loss, we tend to micromanage the institutions and punish those within reach.

This lack of confidence in the market's remedy is most acute for our largest financial institutions, which have publically disclosed substantial losses. The question that the supervisory authorities must answer is whether the losses are large enough to threaten the solvency of any of these firms. This assessment is the first step in determining actions necessary to restoring public confidence in our financial system.

A second principle is that we must do what is best for the overall economy and not what is best for one group. We need to make sure that when one financial firm fails, the resolution process does not cause significant disruptions to financial markets and the economy or make the current problems worse. Furthermore, we must do it for the lowest possible cost so that we don't create a long-term fiscal burden on taxpayers.

It is important to recognize that there are not just the direct costs but, more importantly, long-term costs to the economy and financial system. The direct cost of resolving a failed bank, such as the government bearing some of a failed bank's losses, is simple to determine. However, it is much more difficult to know the costs from some of the unintended consequences. For example, market discipline is reduced when a resolution process does not make management, shareholders and creditors bear the costs of their actions.

The third principle is equity of treatment. Regardless of an institution's size, complexity or location, the resolution process must provide consistent treatment of a failing institution's owners, managers, employees and customers. The process must be transparent and clearly stated so that everyone understands what to expect if they gamble with the firm's assets.

When talking about equity of treatment, it is important to recognize that a single process can lead to different outcomes. For example, if any bank is examined and found to be insolvent, it needs to go through the resolution process with the owners losing their investment. However, the eventual outcomes for the institution can be different. A smaller bank's assets and deposits will likely be sold to another bank. In the case of a larger bank, the firm might be temporarily operated as a bridge bank before either being sold or reprivatized. Regardless, it is important that the banks go through the same process or else an incentive will be created for banks to take on excessive risks in an effort to grow large enough to gain favorable treatment.

A final principle is that we must base the resolution process on facts about what works and what does not work. One way to do this is to look at past financial crises. This is not the first financial crisis, and we can learn a lot about what will and will not be successful by looking back at our own history with financial crises, as well as at the experiences in other countries.

IDENTIFYING THE PROBLEM

With these principles in mind, how should we go about resolving the current problems at our largest institutions?

First, we must determine both the location and size of the losses. Admittedly, it will not be easy. These firms are very large—the four largest bank holding companies each have more than \$1 trillion of assets, which accounts for about half of the banking industry's assets. They have offices around the world, and they are involved in many complex businesses. But in order to repair the financial system, we must get the best estimates of the condition and viability of these firms, and we must require them to reflect their losses in their financial statements.

Normally, we think of a business' solvency in terms of the value of its equity capital. When the value of its assets is less than the value of its liabilities, it has negative equity and it has failed. A financial firm, however, can also fail if its liquidity is insufficient to meet its current payment obligations, either because it can't sell its assets for enough to pay off maturing liabilities, or it loses market confidence and cannot borrow enough.

I would note that these are concrete definitions and not subjective conditions. I mention this because it points out that the term "too big to fail" is a misstatement.

It does not matter what size the firm is. Although a bank might still be open and operating, if it is insolvent by these definitions, it has failed.

Once we determine a bank's status, we would classify these institutions into three categories, depending on whether they are solvent and what their prospects are for continuing as an ongoing concern.

The first category would be firms whose operations are strong and whose equity remains above minimum requirements. These firms would not require much government support, if any. Some might need to raise additional capital to provide a greater cushion against the losses they may suffer during the current crisis. But these institutions are basically sound and should be able to raise private capital.

The second category would be those institutions whose equity temporarily falls below minimum requirements but are expected to recover in a reasonable period of time as economic conditions improve. These firms have generally sound management, who may have made some mistakes and suffered greater losses than normal due to the economic downturn. It is reasonable to expect these banks to raise additional private capital. However, the government may need to provide some capital in the form of preferred shares and possibly some warrants in return. As an equity holder, the government would have an oversight role regarding the firms' operations and activities.

The final category is for the institutions that are no longer viable either because of liquidity problems or their equity capital is currently negative or it is likely to become negative, based on reasonable expectations of future market and economic conditions. These firms, which would likely soon become equity insolvent without government protections and guarantees, would be declared insolvent by the regulatory authority. Shareholders would be forced to bear the full cost of the positions they have taken and risk losing their investment. Senior management and the board of directors would be replaced because they are responsible for the failed strategy.

A RESOLUTION PROCESS

The question then becomes how to resolve these failed institutions while minimizing the cost and disruption to the economy.

The method most often used when a bank fails is to arrange for a sale of its assets and an assumption of its liabilities by another institution. For these extremely large firms, there are a couple of significant roadblocks preventing this solution. First, the acquiring firm must have the capacity for the acquisition, which means it would have to be in the same size range as the failed institution. And secondly, if such a deal was forged, it would create an even larger firm with greater systemic risks to the economy.

Instead, an extremely large firm that has failed would have to be temporarily operated as a conservatorship or a bridge organization and then reprivatized as quickly as is economically feasible. We cannot simply add more capital without a change in the firm's ownership and management and expect different outcomes in the future.

Experience shows that this approach has worked. The best example was with the failure of Continental Illinois National Bank and its holding company in 1984. Because we are in Oklahoma today, I will note that Continental's problems began with some bad loans it purchased from Oklahoma City's Penn Square Bank. As an officer in our Bank's regulatory function at that time, I was directly involved in the closing of Penn Square. In fact, from 1982 to 1992, 347 banks failed or received FDIC assistance in the Tenth Federal Reserve District states. I was involved in almost every one of these resolutions and all were tragedies. I tell you this to make clear that I do not take this proposal lightly nor do I expect any size bank failure to be easy or painless. But the process that worked for Continental Illinois is a viable approach to addressing important aspects of today's crisis.

At the time of its failure, Continental Illinois had \$40 billion in assets and was the nation's largest commercial and industrial lender. It was the seventh-largest bank in the United States. It had 57 offices in 14 states and 29 foreign countries, a large network of domestic and international correspondent relationships, and a separate function for making residential and commercial real estate loans. It also provided specialized services to a variety of companies.

When Continental failed, its top management and directors were replaced with individuals who had experience operating large, complex organizations. John Swearingen, former chairman of Standard Oil of Indiana, became CEO of the holding company, and William Ogden, a former vice chairman of Chase Manhattan Bank, became CEO.

The FDIC committed to taking a book value of \$4.5 billion of bad assets off of Continental's balance sheet and placed them in a separate work-out unit to recover as much of the value of the assets as possible. Among those bad assets, \$1 billion was written off as a loss at the time of the transaction.

To offset the \$1 billion loss to Continental's capital, the FDIC provided \$1 billion in capital in exchange for preferred stock, of which \$720 million was convertible to common stock upon sale. When converted, the \$720 million would amount to a 79.9 percent ownership stake in Continental.

The FDIC also received five-year warrants to purchase the remaining common stock for far below one cent per share (\$0.00001). If at the end of five years, the cost of the resolution was more than \$800 million, the FDIC would exercise 100 percent of the warrants; if losses were lower, the amount of warrants exercised would be in proportion to the amount of the losses.

To economize on FDIC staff and to provide additional expertise, the loan liquidation unit was staffed by a combination of FDIC personnel, hired specialists and Continental employees under incentive contracts.

Continental Illinois was fully reprivatized by 1991 and eventually purchased by Bank of America in 1994. The FDIC exercised all of the warrants so the shareholders in Continental's holding company effectively lost their entire investment. The FDIC sold all of the preferred shares and shares from exercising the warrants for \$1.2 billion, which was a net gain of \$200 million. The FDIC also earned \$200 million in dividends. The ultimate resolution cost to the FDIC was \$1.1 billion, which was 3.28 percent of Continental's assets at the time of resolution.

There has been much talk lately about a new resolution process for systemically important firms that Congress could enact, and I would encourage this be implemented as quickly as possible, but we do not have to wait for new authority. We can act immediately, using essentially the same steps we used for Continental.

Stock could be issued and control assumed by a government entity. A bridge institution could be created within the institution so essential services and operations would continue as normal. Where necessary, the government would provide capital in exchange for preferred shares convertible to common stock upon sale. Existing shareholders would provide the government warrants to purchase all outstanding shares with the amount exercised determined by the government's resolution cost. Senior management and directors would be replaced.

The most difficult part of resolving these large firms without a new resolution process is how to make creditors bear the cost of their positions. Ideally, when a firm fails, all existing obligations would be addressed and dealt with according to the covenants and contractual priorities set up for each type of debt. Insured creditors would have immediate access to their funds, while other creditors would have immediate access to maturing funds with the potential for haircuts, depending on expected recoveries, any collateral protection and likely market impact. However, this is difficult because it would require negotiating with groups of creditors, unless there's a process that allows regulatory authorities to declare a nonbank financial firm insolvent.

Regardless of how the firm is resolved, short-term liabilities in particular would need to be addressed immediately because of their importance in meeting the creditors' daily payment obligations and operational needs. Quick decisions should also be made on all counterparty arrangements because of the widespread impact that uncertainty would have on the counterparties.

Authorities would also need to assess the market impact—specifically, whether the losses associated with this outcome would lead to a loss of confidence in financial markets and serious funding problems that would threaten the viability of other financial firms. If so, it may be necessary to honor all counterparty arrangements and/or short-term liabilities, as we did with Continental Illinois.

However, this guarantee must be considered as an exception to the normal process. Congress would have to enact an approval process similar to the systemic exception for banks as specified in the 1991 FDIC Improvement Act, requiring approval by two-thirds of the Federal Reserve Board, two-thirds of the FDIC Board and the secretary of the Treasury, in consultation with the president.

As much as I dislike extending government guarantees and thereby reducing market discipline, if we were to implement this exception, I believe we would also need to extend the same guarantees to all other institutions or we would give failed institutions a competitive advantage.

Another key part of the resolution is that the bad assets need to be taken off the balance sheet of the failed institution at realistic market values and placed in an asset management company, resulting in two entities often referred to as a "good bank" and "bad bank." Alternatively, the FDIC or Treasury as the receiver could take the bad assets and work them out. After writing off the bad assets, the govern-

ment would provide the “good bank” with enough capital so that it can become a profitable ongoing concern and attractive to private investors for reprivatization. Any recoveries from the bad bank would first go toward paying off the costs of the government, and any proceeds left over would be distributed according to the priority of remaining claimants.

The separation of the bad assets is critical. When a bank has a large share of nonperforming assets, they remain a burden when they are left on the balance sheet, even if they are written down appropriately. For example, they must be funded although they are not producing income. Such a circumstance creates uncertainty about the bank’s financial condition and diverts management’s attention from the business objectives necessary for recovery. The focus of the “good bank” must be on the future, gaining new customers and expanding operations, while the goal of the “bad bank” must be on getting rid of customers and winding down the operations.

As part of the reprivatization process, it is also important to determine the advisability of breaking up or selling off operations and independent subsidiaries where possible, especially given the market discipline problems we have encountered with institutions regarded as “too big to fail.” Moreover, assessing the condition and viability of large, complex financial firms is difficult, and the failure of such a firm may be an indication that it is also too large and complex to manage well. We should avoid setting conditions that only repeat past mistakes in creating too big and too complex an institution.

This system is clearly more equitable than what we have seen so far.

At the start of the TARP I program, \$125 billion was provided to the nine largest financial firms without an in-depth, thorough exam of their condition. However, all other banks received TARP funds only if their primary regulator concluded they were strong enough to weather the crisis and continue as an ongoing concern.

The \$10 per share that Bear Stearns’ stockholders received from the JPMorgan Chase acquisition would not have been possible without the government’s guarantee of \$29 billion of problem assets. Additionally, the government has committed \$173 billion to support AIG’s continued operations, with their shareholders standing to reap financial gain if AIG ultimately recovers.

Meanwhile, 46 banks in the United States have failed since the beginning of 2008. All of them were resolved through one of the bank resolution problems I have discussed here today.

HOW DO WE KNOW THE RESOLUTION PROCESS WILL WORK?

It is understandable that there are concerns about letting these large firms fail, but it should be noted that the program I have just described has a record of success elsewhere.

The economic situation in Sweden in the early 1990s was similar to that in the United States today. Its financial system was dominated by six large banks that accounted for 90 percent of the industry’s assets. Sweden took decisive steps to identify losses in its major financial institutions. The viable Swedish banks were soon recapitalized, largely through private sources, and public authorities quickly took over two large insolvent banks and spun off their bad assets to be managed within a separate entity. Sweden was able to systematically restore confidence in its financial system, and although it took several years to work down and sell off all of the bad assets, there was minimal net cost to the taxpayers.

Some argue that the Swedish situation is not a valid comparison because it only dealt with only six banks. In addition, some argue that the Swedish system was much less complex, and that the Swedish government had to work out primarily commercial real estate loans instead of the complex financial assets, structured securities and derivatives that we would have to work out today.

These are valid concerns, but I would point out, first, that although the United States has several thousand banks, only 19 have more than \$100 billion of assets, and that after supervisory authorities evaluate their condition, it is likely that few would require further government intervention. Second, as for complexity, I would point out that real estate assets involve considerable complexity, no less so than many financial derivatives.

Another important example is the Reconstruction Finance Corporation (RFC), which was used to deal with banking problems in the United States in the 1930s. The RFC followed a process very similar to what I have described. It began by examining problem banks and writing down the bad assets to realistic economic values, making any needed and appropriate changes in bank management, injecting public equity as needed into these banks, and returning the banks to private ownership. The RFC proved to be highly successful in recapitalizing banks, and like Sweden, there was essentially no net cost to taxpayers. More detailed information on

both the Continental Illinois and Swedish models for large bank resolution will be posted today with a text of my remarks on our Bank's website at KansasCityFed.org. Absent a detailed explanation of why this approach can't be done, it is my hope that it will be useful to provide more details around my view that it can be done.

Let me make two final points.

First, the debate over the resolution of the largest financial firms is often sensationalized because it is framed in terms of nationalizing failed institutions. It is also pointed out that government officials may not be effective managers of private business concerns.

In response, I would note that no firm would be nationalized in this program. Nationalization is the process of the government taking over a going concern with the intent of operating it. Though a bridge institution is the most likely outcome when a large financial firm fails, the goal is for the firm to be reprivatized as quickly as possible. In addition, subject to regulatory agency oversight, the bridge firm would be managed by private sector managers selected for their experience in operating well-run, large, complex organizations.

The second point is related to the complexity issue, which is that it would be hard to find enough people with the required knowledge, experience and skills to fill the open positions. Going back to the Continental Illinois example, we were able to do it then. More generally: The United States is a vast country with a tremendous amount of management resources in a broadbased economic and industrial system. If the United States does not have the talent to run these firms, then we are much worse off than I thought. I refuse to accept that conclusion.

MATERIALS REFERENCED IN THE SPEECH: SUCCESS DEPENDS ON FAILURE

A RESOLUTION PROCESS FOR FINANCIAL FIRMS

- The United States is in the middle of a serious financial crisis, and the economy is under significant stress. While there has been a lot of debate about how to revive the economy and restore financial stability, there is broad agreement that the economy will not recover until the financial system is stabilized and credit starts flowing more normally.
- The recovery of the financial system depends critically on the public regaining trust and confidence in financial institutions, particularly the largest financial institutions. The public's confidence in the largest institutions has been seriously shaken by the risks they have taken, the poor management of those risks and the resulting losses. Thus, the restoration of normal financial market activity depends importantly on how the problems of the largest bank and nonbank financial institutions are addressed.
- Despite the best of intentions, the policies and actions directed at restoring the health of the financial system have not been consistent or transparent. It is understandable that the initial measures were ad hoc and inconsistent because the depth and breadth of the problems were not expected and there were no plans in place for addressing the problems.
- The solution must be a clear and fair plan so that financial firms, investors and consumers know what to expect when any financial institution runs into problems. Specifically, the plan must provide a process for how policymakers will address the deterioration of the financial condition of all financial firms, regardless of their size, and resolve them if they become insolvent.
- A resolution process is particularly important for the largest, most complex and interconnected institutions because they have been considered by many as "too big to fail," at least since the early 1980s. This paper describes a resolution process that can be used for any financial firm involved in the intermediation process or payments system, but the focus is on the large, systemically important institutions. The premise of the paper is that no firm is too big to fail and that resolving a large failed firm is the best solution for the economy.

PRINCIPLES FOR A RESOLUTION FRAMEWORK

- A free market system requires that business owners capture the profits from their successes and bear the costs of their failures. Firms that meet the market test will grow, while those that do not will shrink and, ultimately, must be allowed to go out of business if they fail. The consequences of failure and the resolution framework must be clearly stated and transparent so that business owners have clear expectations about the consequences of their actions.

- The resolution framework must prescribe a predefined set of rules, guided by an agreed upon set of principles. This is particularly important for financial institutions, big or small, because their success depends critically on the public's trust that they are solvent and a viable, ongoing concern.
- There are two key principles that the resolution process should follow.
- First, the resolution process should minimize the cost to the overall economy.
 - When resolving an insolvent firm, it is important that it does not cause significant financial and economic disruptions or exacerbate current problems.
 - The process should minimize the cost of resolving an insolvency to avoid a long-term fiscal burden on taxpayers.
 - The relevant costs are not just the direct costs but, more importantly, the current and future impact on the economy and financial system.
 - The direct costs of resolving a failed bank, such as the government bearing some of the failed bank's losses, is simple to add up.
 - However, minimizing the future costs on the economy and financial system, particularly the unintended consequences, is much more difficult.
 - To minimize the future cost to the economy, the resolution process must not create adverse incentives that are inconsistent with economic efficiency. Specifically, the resolution process must not allow a firm's management, shareholders and creditors to avoid the consequences of their mistakes because it reduces market discipline, creates adverse incentives for firms to take too much risk, and inefficiently directs resources and financial capital to less-productive uses.
 - The process must be transparent and clearly stated so that everyone understands what to expect and the consequences of their actions. Management must know beforehand what will happen if they gamble and take excessive risks that turn out to have a significant, negative effect on the firm's financial condition.
 - Finally, to minimize costs, the resolution process should be based on solid research and information about what works and what does not work. Policymakers can learn a lot about what will and will not be successful by looking back at previous U.S. financial crises, as well as at crises in other countries.
- The second principle is the resolution process must be equitable in that it is the same for all financial firms regardless of size or location, although it is possible that the outcome will differ.
 - The resolution process must provide consistent treatment of a failing institution's owners, managers, employees and customers, regardless of the institution's size, complexity or location.
 - When talking about equity, it is important to recognize the difference between process and outcome.
 - For example, if a bank is examined and found to be insolvent, the bank should go through the resolution process and the owners should lose their investment regardless of the bank's size. The outcome may be that a relatively small bank is resolved by another institution purchasing its assets and assuming its deposits, while a relatively large bank is temporarily operated as a bridge bank.
 - In both cases, the banks go through the same process of being declared insolvent and the same procedures for determining how it will be resolved.
 - Otherwise, banks may take on excessive risks just to grow to a size large enough to receive favorable treatment, and customers may choose to go with a large bank instead of a small bank.

OPTIONS FOR RESOLVING A FAILED FINANCIAL INSTITUTION

- There are several options for resolving a failed firm, but it is important to first define insolvency.
 - By definition, a firm is insolvent if its common equity capital is negative—that is, the firm's outstanding liabilities owed to creditors is greater than the total value of its assets.
 - However, a financial firm, even if it has a positive amount of equity capital, is not viable and will fail if its liquidity is insufficient to meet its current payment obligations, either because it cannot sell its assets for enough to pay off maturing liabilities, or it loses market confidence and cannot borrow enough.

—It is important to note that these are definitions of insolvency and are not subjective conditions, which points out that the term “too big to fail” really is a misstatement. It does not matter what size a firm is—if it is insolvent by these definitions, it has failed.

- The question becomes, what do we do when a firm fails?
- One option is for the government to allow an insolvent firm to maintain ongoing operations by providing funds to bring capital ratios up to required minimums or to meet payment obligations.
 - In this case, nothing is actually resolved, and the insolvent firm is essentially bailed out so that it can continue normal operations.
 - This option may be used for a large financial firm that is considered “too big to fail” because of concerns that it is systemically important, in the sense that other resolution methods would have large, negative spillover effects on the economy.
 - Under this option, the term “too big to fail” should be restated as “too big to resolve” because of the near-term negative spillover effects and disruptions to the economy and financial system.
 - In a bailout, senior management and directors keep their jobs; current shareholders do not lose their investment, although the government may impose some restrictions on the firm’s activities and practices; and creditors do not suffer any losses.
 - A bailout is the worst option in terms of the first principle of minimizing costs.
 - While a bailout may temporarily stabilize current economic conditions or not immediately cause further problems, it sets the stage for significant future problems. In a bailout, senior management, directors and current shareholders stand to reap any gains that may result, which weakens market discipline and creates the moral hazard that the firm will take too much risk.
 - Bailouts are also inequitable because they are used only for the “too big to fail” firms and not for smaller firms that are not expected to cause spillover effects if other resolution methods are used.
- Alternatively, bank regulators have for years used a variety of options to resolve insolvent banks. These options include:
 - liquidation,
 - arranging for the sale of a failed bank’s assets and assumption of its liabilities by another institution,
 - or operating the bank for a short period of time through open-bank assistance or as a bridge bank or conservatorship until the bank can be sold to another bank or group of private investors.
- When most people think of a firm as failing, they generally think the firm is shut down and liquidated.
 - In a bank liquidation, the FDIC is appointed as a receiver and it pays off insured depositors up to the deposit insurance limit.
 - Uninsured depositors are generally paid partial amounts based on expected recoveries.
 - The FDIC maximizes the value of the assets by selling them or holding on to them and working them out. The proceeds from the assets are used to first pay remaining amounts owed to uninsured depositors and other unsecured creditors, and if anything is left over, to shareholders.
 - Because the firm is insolvent, the uninsured creditors will suffer some losses, and they may have to wait for a long time to receive their final payouts.
 - While liquidation strongly enforces market discipline and does not promote moral hazard, it tends to be the most disruptive option for resolving a big or small financial firm, and therefore is the least desirable choice.
 - This option is disruptive for individuals and business customers because they tend to hold short-term instruments, such as deposits and commercial paper, for making payments or as a temporary way of storing their funds. Many business customers also have counterparty arrangements, such as derivatives contracts, that would go into default when the bank is liquidated.
- The resolution method used most often is a purchase and assumption (P&A) transaction, where the FDIC as receiver finds another bank to purchase the insolvent bank’s assets and assume its liabilities.

—In terms of the direct costs to the government, this is typically the least-cost resolution method because the FDIC may receive a premium from the acquiring bank. And even if the FDIC has to pay the acquiring bank to assume the liabilities, it is often less costly than paying off insured depositors and having to manage and liquidate the failed bank's assets.

More importantly, though, it generally has the least negative impact on the economy.

Short-term creditors and counterparties have immediate access to all insured deposits and at least a large portion of uninsured obligations, while borrowers continue to have access to credit.

In addition, because management and directors are replaced and shareholders lose their investment, a P&A transaction does not reduce market discipline or create adverse incentives for bank management and shareholders.

- While a P&A transaction is often the best option for most failed banks, it generally is not the best option if one of the largest financial institutions fails because it creates even larger companies that pose even greater systemic risks to the economy.
 - A major difficulty in the current financial crisis has been that some institutions are so large and complex that resolving them when they fail is complicated and disruptive no matter what option is used.
 - Only another institution in the same size range would have the capacity and resources to purchase the assets and assume the liabilities of another large institution.
 - Indeed, over the past year, there have been several examples of large institutions taking over other large, problem institutions. It only makes sense that if institutions can get “too big to fail,” then all else held constant, the resolution process should not result in even larger institutions.
- The final option, which is the most feasible for a large, complex financial institution that fails, is to run it temporarily as a conservatorship or bridge organization.
 - Clearly, a liquidation would be too disruptive to the economy.
 - This option also provides time for potential acquirers of the institution or its parts to conduct the necessary due diligence.
 - The institution would then be reprivatized as soon as it is economically feasible.
 - As will be discussed below, management, shareholders and creditors would be forced to bear the full cost of their actions and positions they have taken to maintain market discipline and economic efficiency.
- One of the difficulties with all of these options is that while there are time-tested, fast resolution processes in place for depository institutions, today's largest financial institutions are conglomerate financial holding companies with many financial subsidiaries that are not banks.
 - The bank subsidiaries could be placed into FDIC receivership, but the only other option under current law for the holding company and other subsidiaries is a bankruptcy process.
 - Bankruptcy proceedings can take a long time to complete—sometimes years—which works well for a nonfinancial firm because it can continue normal operations while in bankruptcy.
 - It does not work for financial firms, however, because they have a variety of complex, short-term liabilities and counterparty arrangements that customers depend on for maintaining daily operations. A long, drawn-out bankruptcy proceeding would prevent customers and counterparties from having access to their funds, which would cause significant economic disruptions.
 - In addition, the cornerstone of a financial institution's franchise value is trust in its viability as an ongoing concern, and that trust is sure to quickly erode in a long, drawn-out bankruptcy proceeding.
 - The difficulty in resolving failed holding companies quickly and in a way that minimizes the disruption to the economy is why the Treasury secretary recently proposed a resolution process for systemically important financial holding companies.
- Enacting a resolution process for financial companies is clearly important, but the supervisory authorities do not need to wait for it to happen and should act immediately to resolve a large financial company should one fail.

A PROPOSED RESOLUTION PROCESS

- The resolution process discussed below is applicable to any financial firm that is part of the intermediation process or payments system, but in light of the current financial crisis, the focus is on systemically important financial institutions that are found to be insolvent.
- To prevent systemic disruptions to the economy, a failed institution should be allowed to continue its operations through a bridge institution or conservatorship so that all essential services and operations would go on as normal.
 - Because the firm is insolvent, it would need additional capital to continue operating.
 - To recapitalize the firm, the government could provide the capital in exchange for preferred shares, convertible to common stock upon sale.
- In general, the supervisory authorities would not have the authority to declare the institution insolvent. Thus, to ensure that management and shareholders bear the costs of their actions and investment decisions, the government's investment would be conditional on:
 - Replacement of the senior management and board of directors that led the firm to failure.
 - Existing shareholders providing the government warrants to purchase all outstanding shares, with the amount exercised determined by the net costs of resolving the firm.
 - While shareholders may be reluctant to agree to these conditions, in most cases, they would have little choice given the immediate need for liquidity and capital assistance.
- The specific steps to be taken would depend on several factors, such as the type of financial organization and the supervisor's existing legal authority.
 - For example, if a holding company's primary asset is an insured bank and the bank and holding company become insolvent, the bank could be closed and the FDIC could set up a bridge bank.
 - In this case, the holding company would also fail, and the supervisory authorities could take actions to mitigate the impact on the rest of the economy.
- The most difficult part of resolving these large firms without a new resolution process is how to make creditors bear the cost of their positions.
 - Ideally, when a firm fails, all existing obligations would be addressed and dealt with according to the covenants and contractual priorities set up for each type of debt.
 - Insured creditors would have immediate access to their funds, while other creditors would have immediate access to maturing funds with the potential for haircuts, depending on expected recoveries, any collateral protection and likely market impact.
 - However, this is difficult because it would require negotiating with groups of creditors, unless there's a process that allows regulatory authorities to declare a nonbank financial firm insolvent.
- Regardless of how the firm is resolved, it is critical to make quick decisions on how creditors will be treated.
 - Short-term liabilities in particular would need to be addressed immediately because of their importance in meeting the creditors' daily payment obligations and operations needs.
 - Quick decisions also need to be made on all counterparty arrangements because of the widespread impact that uncertainty about their status or default would have on their counterparties.
 - So that unsecured creditors bear the cost of their decisions and market discipline is maintained, the resolution authorities should consider leaving these creditors standing in line behind more senior creditors as the claims on the bank are resolved.
 - However, the authorities would also need to assess the market impact—specifically, whether the losses associated with this outcome would lead to a loss of confidence in financial markets and serious funding problems that would threaten the viability of other financial firms.
- In a severe financial crisis, such as is occurring today, it may be necessary to honor *short-term* liabilities and/or all counterparty arrangements to prevent a systemic disruption to the economy.

—However, this guarantee should be considered as a “systemic” exception to the normal process.

—To limit the use of this exception to truly systemic situations, Congress should enact an approval process similar to the systemic exception for banks as specified in the 1991 FDIC Improvement Act.

—This exception requires approval by two-thirds of the Federal Reserve Board, two-thirds of the FDIC Board and the secretary of the Treasury, in consultation with the president.

—In addition, though the extension of government guarantees and the resulting reduction in market discipline should generally be avoided, extension of the same guarantees would need to be made to every other institution. Otherwise, failed institutions would have a competitive advantage over sound institutions, which clearly violates the principle of equitable treatment.

- Another key part of the resolution is the bad assets need to be taken off the balance sheet of the failed institution at realistic market values.

—One option is to place the bad assets in a separate asset management company, resulting in two new entities often referred to as a “good bank” and “bad bank.”

—Alternatively, the FDIC or Treasury as the receiver could take the bad assets and work them out.

—After writing off the bad assets, the government would provide the good bank with enough capital so that it can become a profitable ongoing concern and attractive to private investors for eventual reprivatization.

—Any recoveries from the bad bank would first go toward paying off the costs of the government, and any proceeds left over would be distributed according to the priority of remaining claimants.

- The separation of the bad assets is critical for creating a forward-looking process for recovery and the eventual reprivatization of the good bank.

—When a bank has a large share of nonperforming assets, they remain a burden when they are left on the balance sheet, even if they are written down appropriately.

—For example, they still have to be funded even though they are not producing income, they create uncertainty about the bank’s financial condition, and they divert a lot of management’s attention from more productive activities for the future growth and profitability of the bank.

—In addition, the business objectives and the skills necessary for managing bad assets and recovering their maximum value is very different from the objectives and necessary skills for running an ongoing financial firm.

—In other words, the goal of the good bank is to attract new customers and expand operations, while the goal of the bad bank is to get rid of customers and wind down the operations.

- As part of the reprivatization process, the supervisory authorities should consider breaking up or selling off operations and independent subsidiaries where possible.

—The growth of firms into “too big to fail” institutions has created significant market discipline problems.

—In addition, if such a firm were to fail, it may also be an indication that it is too large and complex to manage well.

HOW DO WE KNOW THE RESOLUTION PROCESS WILL WORK?

- A variety of concerns has been raised about letting the largest financial firms fail. These concerns are legitimate and it is clear that any solution will be difficult and costly. However, the resolution process being advocated here has a record of success elsewhere.

- First, the proposed resolution process is exactly what the Swedes did to solve an equally severe banking crisis that they had in the early 1990s (see attachment “Swedish Response to 1990s Banking Crisis” for a more detailed description of the Swedish crisis and resolution process).

—The economic situation in Sweden was similar to today’s, and their financial system was dominated by six large banks that accounted for 90 percent of the industry’s assets.

—Sweden took decisive steps to identify losses in its major financial institutions.

—The viable Swedish banks were soon recapitalized, largely through private sources, and public authorities quickly took over two large insolvent banks and spun off their bad assets to be managed within a separate entity.
 —Sweden was able to quickly restore confidence in its financial system, and although it took several years to work down and sell off all of the bad assets, there was essentially no net cost to the taxpayers.
 —Creditors, however, were fully protected because the supervisory authorities were concerned about the systemic consequences of imposing losses on uninsured depositors and other unsecured creditors.

- Some people do not think that the Swedish situation is a valid comparison because it dealt with only six banks. In addition, some argue that the Swedish system was much less complex, and that the government primarily had to work out commercial real estate loans, not the complex financial assets, such as structured securities and derivatives, that would have to be worked out today if a large financial institution was allowed to fail. While these concerns are valid, it should be noted that:
 - Although the United States has several thousand banks, only 19 banks have more than \$100 billion of assets, and that after supervisory authorities evaluate their condition, it is likely that only a few would have to be resolved.
 - It is actually very difficult to work out problems on real estate assets, and it is not necessarily more difficult to work out even complex securities.
- As an aside, an additional lesson that can be learned from Sweden is that a resolution process is much more likely to succeed if it has broad political support and is structured to be independent of the political process.
 - The plan should be put largely under the control of independent supervisory agencies.
 - Political involvement should be confined largely to specifying the program's goals and basic rules.
 - The Swedes also found that a commitment to providing the supervisory authority the funds necessary for resolutions reduces the need for political involvement.
- A second example is this is essentially the process the Reconstruction Finance Corporation (RFC) used to deal with banking problems in the United States in the 1930s.
 - The RFC began by examining problem banks and writing down the bad assets to realistic economic values.
 - It then made any needed and appropriate changes in bank management and provided public equity capital as needed.
 - Finally, it returned the banks to private ownership and essentially recovered all of its costs.
- A final example is the failure of Continental Illinois National Bank and its holding company in 1984. This is a good comparison because it is an example of a holding company resolution using preferred stock and warrants as described in the proposed process. In addition, it is an example of a resolution of a large, complex, interconnected holding company.
 - Continental Illinois was the largest U.S. commercial and industrial lender and the seventh-largest U.S. bank. It had 57 offices in 14 states and 29 foreign countries, a network of 2,300 domestic and international correspondent relationships, and a separate function for making residential and commercial real estate loans. It also provided specialized services to a variety of companies.
 - The attached document, "Assistance for Continental Illinois," provides details about the process used to resolve the bank and holding company.
 - The result was that the bank and holding company management were replaced, the holding company shareholders lost their entire investment, and the bank was restored to sound condition and returned to private ownership.
 - As in Sweden, Continental Illinois' creditors were fully protected because of concerns about the systemic consequences of imposing losses on uninsured depositors and other unsecured creditors.
- Another concern that has been raised about letting the largest financial firms fail is that it nationalizes these institutions. As part of this concern, it is also often pointed out that government officials may not be effective managers of private business concerns.

—In the proposed process, no firm would be nationalized.
 —Nationalization is the process of the government taking over a going concern with the intent of continued ownership.
 —Though a bridge institution is the most likely outcome for a large financial firm that fails, the goal is for the firm to be reprivatized as quickly as possible, subject to the government not wasting taxpayer funds.
 —In addition, subject to regulatory agency oversight, the bridge firm would be managed by private sector managers selected for their experience in operating well-run, large, complex organizations.

- Some opponents to the proposed process also claim it would be very difficult to take over these firms and bring in new management because they are too complex to manage, as well as there is not enough people with the required knowledge, experience, and skills to fill the open positions.
 —The Continental Illinois example shows it is possible bring in a management team with experience running large, complex organizations.
 —In addition, while the institution might be complex, a new management team is clearly better than leaving the institution under the control of the management team that caused it to fail in the first place.
 —More generally, it is hard to believe that there is not enough talent, either from the United States or other countries, to run these organizations.

ASSISTANCE FOR CONTINENTAL ILLINOIS

I. Problems at Continental Illinois

- In the late 1970s and early 1980s, Continental Illinois pursued a strategy of rapid growth in commercial lending, particularly energy lending, that was largely funded by purchased money.
- It became the seventh-largest U.S. bank and largest commercial lender in the United States.
- Penn Square's failure in 1982, LDC debt problems and the downturns in energy markets led to declining asset quality and earnings at Continental from 1982 into 1984 and forced Continental to rely heavily on foreign money markets for funding.
- News stories in May 1984 on Continental's problems started a run by foreign depositors on Continental, and by May 19, they had withdrawn more than \$6 billion.
- The Federal Reserve Bank of Chicago began lending through the discount window to cover the lost deposits, and Continental put together a \$4.5 billion loan package funded by 16 large U.S. banks, but these steps did not stop the deposit run.

II. Interim Financial Assistance

- On May 17, 1984, the FDIC, OCC and Federal Reserve announced an interim assistance package for Continental, which was based on the FDIC's open bank assistance authority.
- The FDIC explicitly guaranteed all deposits at Continental in order to keep a liquidity crisis from spreading to other U.S. banks, prevent significant losses at the many banks that had correspondent accounts at Continental and avoid other negative effects in U.S. financial markets.
- A \$2 billion capital infusion for Continental was arranged in the form of interestbearing subordinated notes, with the FDIC providing \$1.5 billion and the remaining \$500 million provided by seven of the largest U.S. banks.
- The Federal Reserve agreed to meet any liquidity needs of Continental, and a group of 24 major U.S. banks also agreed to provide more than \$5.3 billion in funding on an unsecured basis until a permanent solution was developed.
- The FDIC was unable to find any merger partners for Continental during this interim period, presumably due to Continental's asset problems, substantial litigation and funding issues, along with the limited number of merger partners under Illinois' interstate banking restrictions.

III. Permanent Financial Assistance

—In July 1984, a permanent assistance plan was put in place for Continental.
 —Continental's top management and board of directors were removed. John Swearingen, former chairman of Standard Oil of Indiana, became CEO of the holding company, and William Ogden, a former vice chairman of Chase Manhattan, became CEO of the bank.

—The FDIC assumed \$3.5 billion of Continental's discount window borrowings from the Federal Reserve.

—In exchange for assuming this debt, the FDIC received \$3.5 billion (adjusted book value) of assets from Continental. This consisted of poor quality loans that Continental had already written down to \$3 billion (these loans were further written down to \$2 billion in this transaction, and Continental was forced to take a charge of \$1 billion against capital) and a note from Continental for \$1.5 billion, which Continental could repay within three years by giving the FDIC additional loans of Continental's choice with a book value of \$1.5 billion.

—To offset the \$1 billion charge to Continental's capital that was required by the loan sale, the FDIC infused \$1 billion in capital into Continental. The FDIC's capital infusion consisted of \$720 million of permanent, convertible, nonvoting, junior perpetual preferred stock in Continental's holding company (this amounted to a 79.9 percent ownership stake in Continental if converted) and another \$280 million of permanent, adjustable-rate, cumulative preferred stock in the holding company. This assistance was provided through the holding company rather than the bank because covenants in the holding company's debt instruments required debtholder approval to sell the bank or to inject capital directly into it.

—The FDIC also received an option designed to compensate it for any losses, carrying costs or collection costs on the loans it acquired.

—The \$2 billion in subordinated notes issued under the interim plan was repaid.

—To economize on FDIC staff and to provide additional expertise, the loan liquidation involved a combination of FDIC personnel, Continental employees under incentive contracts and hired specialists.

IV. *Return to Private Ownership and the Cost of Resolving Continental Illinois*

—In a series of sales that took place between December 1986 and June 1991, the FDIC sold all of its preferred stock and the stock acquired through its option.

—The shareholders in Continental's holding company lost their entire investment once the FDIC exercised the option it received as compensation for loan liquidation losses.

—From the sale of stock, which completed the return of Continental to private ownership, the FDIC had a net gain of \$200 million over its initial \$1 billion capital investment, and it also received more than \$200 million in dividends on this stock.

—Overall, the loss on the FDIC's books from Continental's failure was \$1.1 billion, which is equal to 3.28 percent of Continental's assets at the time of resolution.

—Bank of America eventually bought Continental in August 1994.

SWEDISH RESPONSE TO 1990s BANKING CRISIS

- Economic and financial market conditions leading up to the Swedish banking crisis were very similar to the conditions leading up to the current crisis.
 - Deregulation of financial markets (elimination of quantitative controls on bank lending, ceilings on interest rates and restrictions on capital flows) is similar to recent deregulation (Gramm-Leach-Bliley) and financial innovations (securitization, derivatives).
 - Large inflow of foreign capital and expansion of domestic lending and debt.
 - Low/negative real interest rates.
 - Strong growth in consumption and real estate investment and low savings rate.
 - Sharp increases in asset prices (stocks and real estate).
- Although the economic downturn leading to the crisis was precipitated by rising real interest rates, the impact on the economy was similar to the current crisis.
 - Stock and real estate prices fell sharply (tangible asset values fell about 30 percent).
 - Bankruptcies increased dramatically (bankruptcies grew about 20 percent, 40 percent and 70 percent in 1989, 1990 and 1991, respectively).
 - Consumption fell and the savings rate rose from being slightly negative at the end of the 1980s to 8 percent in 1993.
 - Residential real estate investment froze.

- Goal of financial support and recovery plan—temporary government investment in banks where necessary, but banks were to be placed in private ownership as soon as economically feasible.
- Political support—the program had broad political support, which was important for quick decisive actions and providing the national leadership necessary for public support.
- Political independence—a Bank Support Authority, separate from the financial supervisory authority and central bank, was established under the Ministry of Finance to manage the program. The Bank Support Authority (BSA) had open-ended funding and was free from political interference in making decisions, although the BSA worked closely with the supervisory authority and central bank.
- Debt guarantees
 - All bank depositors, counterparties, and other creditors were fully protected from future losses, including foreign creditors (accounted for about 40 percent of bank funding).
 - Guarantees were eliminated when the crisis ended in the mid-1990s, and a bank-financed deposit insurance system was created (Sweden did not have deposit insurance prior to the crisis).
- Transparency
 - The government was very open about the process.
 - A valuation board composed of real estate experts was used to ensure consistent and realistic asset values, and asset values that had declined were promptly written down.
- Bank recapitalization
 - A bank's future viability was estimated using a quantitative model of profitability subject to various economic scenarios. Banks were placed in one of three categories based on their viability in the worst-case scenario, which determined the type of government support they would receive.
 - Category 1—Capital deteriorates but remains above minimum requirements.
 - The bank was expected to raise additional capital, with temporary government guarantees available if necessary to help maintain public confidence.
 - Category 2—Capital falls below minimum requirements but is expected to rise above the minimum in a reasonable period of time.
 - Shareholders were expected to contribute additional capital, with the government contributing capital as necessary to meet operating requirements. Government received preferred shares.
 - Category 3—Capital becomes negative and bank is unlikely to become profitable.
 - Bank declared insolvent and government resolves the bank in the least-costly manner, including the possibility of liquidation.
 - Good bank, bad bank model—used for banks that received government support and for insolvent banks. Nonperforming loans were transferred to work-out companies at realistic market values. The good bank is provided additional capital as necessary for sound operations and managed by financial market professionals with clear business objectives.
 - Shareholders were not protected (except for one bank in which the government was the majority shareholder, as noted below).
 - Government's preferred shares were offset by a corresponding reduction in private shares.
 - The government also received voting power that would grow over time, so the government would eventually become the majority shareholder if the support was large enough and maintained for a long period of time.
 - Banks that received assistance were given conditions to make operational improvements. Government representatives were placed on the bank boards to ensure compliance.
 - Results
 - Among the six major banks, Nordbanken (Category 2) received government capital (the government was already the majority shareholder and it also purchased the outstanding privately held shares); Gota (Category 3) failed, was taken over by the government and eventually merged with Nordbanken; and Sparbanken received a government loan.
 - The banking crisis was largely over by 1996 and the banking system remained largely intact—there were no runs and few signs of a credit crunch.
 - While there is no official estimate of the cost of the support program, the most recent estimate of the net fiscal cost is that the government broke even, which is based on government outlays during the most acute phases

of the crises and revenues from the sale of bad assets, referred shares and other proceeds over the past 15 years. The initial gross fiscal cost of the support program is estimated to have been about 4 percent of GDP.

—Ultimately, Nordbanken was largely privatized and is now part of Nordea (the government owns about 20 percent), which operates in Sweden, Norway, Finland and Denmark.

- Lessons learned

—Political consensus on a support plan is crucial.

—Once the plan is formed and implemented, it is just as important for the process to be independent of political interference and fully transparent to the public.

—The government officials in charge of the program must take timely and decisive actions to resolve problem firms, which is one reason political independence is important.

—Assets must be given realistic valuations.

—Shareholders at failing banks must lose their investment, and senior management and the board of directors must be replaced for both efficiency and equity purposes. Markets will not be efficient unless those who may benefit from taking risk actions also bear the costs when those actions lead to losses, and equitable treatment requires that the same rules apply to all firms regardless of size.

—The program's success also requires that the new management of the good and bad banks are financial industry professionals, are given sound business objectives and clearly understand to whom they are responsible, which is another reason why political independence is important.

REFERENCES

Davison, Lee. "Continental Illinois and 'Too Big to Fail,'" *History of the Eighties, Lessons for the Future, Vol. 1, An Examination of the Banking Crises of the 1980s and Early 1990s*, Federal Deposit Insurance Corporation, 1997, Chapter 7, pp. 235-257.

Englund, Peter. "The Swedish Banking Crisis: Roots and Consequences," *Oxford Review of Economic Policy*, Vol. 15, No. 3, pp. 80-97.

Ergunor, O. Emre. "On the Resolution of Financial Crises: The Swedish Experience," Federal Reserve Bank of Cleveland, *Policy Discussion Paper*, Number 21, June 2007.

Ingves, Stefan, and Lind, Goran. "Is the Swedish Model Still Valid?" Presentation at G30 Conference, Sveriges Riksbank, New York, December 5, 2008.

Ingves, Stefan, and Lind, Goran. "The Management of the Bank Crisis—In Retrospect," *Quarterly Review*, 1/1996, pp. 5-18.

Jonung, Lars. "The Swedish Model for Resolving the Banking Crisis of 1991-93: Seven Reasons Why it was Successful," DG ECFIN, European Commission, Brussels, *European Economy*, Economic Papers 360, February 2009.

Jonung, Lars, Kiander, Jaakko, and Vartia, Pentti. "The Great Financial Crisis in Finland and Sweden: The Dynamics of Boom, Bust and Recovery, 1985-2000," DG ECFIN, European Commission, Brussels, *European Economy*, Economic Papers 350, December 2008.

McDermott, Kate. "Continental Illinois National Bank and Trust Company," *Managing the Crisis*, Federal Deposit Insurance Corporation, 1998, Chapter 4, pp. 545-65.