Conference Proceedings

Levy Economics Institute of Bard College

19th ANNUAL HYMAN P. MINSKY CONFERENCE ON THE STATE OF THE U.S. AND WORLD ECONOMIES

After the Crisis: Planning a New Financial Structure

April 14–16, 2010, New York City

A conference organized by The Levy Economics Institute of Bard College with support from the

FORD FOUNDATION

Contents

The proceedings consist of transcripts of the speakers' remarks and summaries of session participants' presentations.

Foreword

I am delighted to welcome you to the 19th Annual Hyman P. Minsky Conference, "After the Crisis: Planning a New Financial Structure," organized by the Levy Economics Institute of Bard College with support from the Ford Foundation.

Hyman Minsky was convinced that economic systems are prone to financial instability and crisis, and urged that lessons be learned from the crisis of 1929–33 so that "it"—the Great Depression—could not happen again. This year's conference draws upon many Minskyan themes, including reconstituting the financial structure; the reregulation and supervision of financial institutions; the relevance of the Glass-Steagall Act; the roles of the Federal Reserve, FDIC, and the Treasury; the moral hazard of the "too big to fail" doctrine; debt deflation; and the economics of the "big bank" and "big government." Speakers will also compare the European and Latin American responses to the global financial crisis and proposals for reforming the international financial architecture. Moreover, central bank exit strategies, both national and international, will be considered.

I look forward to seeing you again at future Levy Institute events.

Dimitri B. Papadimitriou
President, The Levy Economics Institute, and *Jerome Levy Professor of Economics,* Bard College

Program

Wednesday, April 14

9:00–9:30 a.m.

WELCOME AND INTRODUCTION

Leonardo Burlamaqui, *Ford Foundation*

Dimitri B. Papadimitriou, *Levy Institute*

9:30–10:30 a.m.

SPEAKER

Sandra Pianalto, *Federal Reserve Bank of Cleveland*

"Regulatory Reform: Lessons from the Front Line"

10:30–11:30 a.m.

SPEAKER

Jan Kregel, *Levy Institute and Tallinn Technical University*

"Minsky Moments and Minsky's Proposals for Regulation of an Unstable Financial System"

11:45 a.m. – 1:00 p.m.

SESSION 1

What to Do with the "Too Big To Fail" Doctrine: U.S. and Europe

Moderator: John Cassidy, The New Yorker

Philipp Hartmann, *European Central Bank*

"Macro-prudential Supervision and How to Limit the Risks of Systemic Financial Intermediaries"

Bert Ely, *Ely & Company, Inc.*

"What to Do with the "Too Big to Fail Doctrine: U.S. and Europe"

Bernard Shull, *Hunter College and NERA Economic Consulting*

"Bank Merger Policy in a Too-Big-to-Fail Environment"

1:00–2:45 p.m.

SPEAKER

Richard W. Fisher, *Federal Reserve Bank of Dallas*

"Minsky Moments and Financial Regulatory Reform"

3:00–4:00 p.m.

SPEAKER

Eugene A. Ludwig, *Promontory Financial Group, LLC; former Comptroller of the Currency*

"Are We Addressing the Root Causes of the Problem?"

4:15–5:30 p.m.

SESSION 2

Financial Regulation Proposals

Moderator: Gretchen Morgenson, The New York Times

Michael Greenberger, *The University of Maryland*

Martin Mayer, *The Brookings Institution*

Eliot Spitzer, *54th Governor of New York; former New York State Attorney General*

5:30 p.m.	**SPEAKER** Richard H. Neiman, *Superintendent of Banks, State of New York*; *and TARP Congressional Oversight Panel*

Thursday, April 15

9:00–10:00 a.m.	**SPEAKER** Keith S. Ernst, *Center for Responsible Lending*
10:00–11:00 a.m.	**SPEAKER** Paul Krugman, *Princeton University, London School of Economics, and* The New York Times “Six Doctrines in Search of a Policy Regime”
11:00 a.m. – 12:00 p.m.	**SPEAKER** James Bullard, *Federal Reserve Bank of St. Louis* “Containing Risks in the New Global Financial Landscape”
1:45–3:00 p.m.	**SESSION 3** **Fed/FDIC Regulation** *Moderator:* Louis Uchitelle, The New York Times Jane D’Arista, *Political Economy Research Institute, University of Massachusetts Amherst* “Is the Fed Perpetuating its Failures?” Richard S. Carnell, *Fordham University; former Assistant Secretary of the Treasury for Financial Institutions* “Regulators’ Incentives” Ernest T. Patrikis, *White & Case, LLP*; *former First Vice President of the Federal Reserve Bank of New York*
3:00–4:00 p.m.	**SPEAKER** Paul A. Volcker Jr., *Economic Recovery Advisory Board; former Chairman of the Federal Reserve Board*
4:15–5:30 p.m.	**SESSION 4** **Minsky and the Current Crisis** *Moderator:* Jeff Madrick, Challenge; *Roosevelt Institute; and Bernard Schwartz Center for Economic Policy Analysis, The New School* Jan Hatzius, *Goldman Sachs* Robert W. Parenteau, *Levy Institute and MacroStrategy Edge* “Minsky and the Eurozone Predicament: Transcending the Dismal Science”
5:30 p.m.	**SPEAKER** Paul McCulley, *PIMCO*

Friday, April 16

9:00–10:15 a.m.

SESSION 5

Beyond the Exit: Banks and Central Banks

Moderator: Deborah Solomon, The Wall Street Journal

Peter R. Fisher, *BlackRock, Inc.; former Under Secretary for the U.S. Treasury for Domestic Finance*

Kevin M. Warsh, *Board of Governors of the Federal Reserve System*

Richard Sylla, *New York University*

"Threats to Central Bank Independence"

10:15–11:15 a.m.

SESSION 6

Internal and External Financial Fragility

Moderator: L. Randall Wray, *Levy Institute and University of Missouri–Kansas City*

Eric Barthalon, *Allianz Investment Management, SE*

"Perceived Returns, Risks of Loss, and Minsky's Financial Instability Hypothesis"

Frank Veneroso, *Veneroso Associates, LLC*

"The Serial Bubble Epoch: Is It Over?"

Robert J. Barbera, *Investment Technology Group, Inc.*

11:30 a.m. – 12:30 p.m.

SESSION 7

International Financial Fragility

Moderator: Dimitri B. Papadimitriou, *Levy Institute*

James K. Galbraith, *Levy Institute and University of Texas at Austin*

Luis Carlos Bresser-Pereira, *Getulia Vargas Foundation*

"Capital Flows and the Changing Balance in the World Economy"

L. Randall Wray, *Levy Institute and University of Missouri–Kansas City*

"Minsky's Money Manager Capitalism and the Global Financial Crisis"

12:30–2:30 p.m.

SPEAKER

Thomas M. Hoenig, *Federal Reserve Bank of Kansas City*

2:30–3:45 p.m.

SESSION 8

Policy Reponses of Emerging Markets to the Crisis

Moderator: Jan Kregel, *Levy Institute and Tallinn Technical University*

Nelson H. Barbosa Filho, *Secretary of Economic Policy, Federal Government of Brazil*

"Development and Countercyclical Policies in Brazil"

Fernando J. Cardim de Carvalho, *Federal University of Rio de Janeiro*

"International Reserves and Policy Space in Latin America"

Rainer Kattel, *Tallinn Technical University*

"The Crisis and Policy Responses in Eastern Europe"

Welcome and Introduction

LEONARDO BURLAMAQUI

Program Officer, Governance and Civil Society, Ford Foundation

DIMITRI B. PAPADIMITRIOU

President, Levy Economics Institute

LEONARDO BURLAMAQUI: Good morning. Welcome to the Ford Foundation and to the 19th Annual Hyman P. Minsky Conference. I'm Leonardo Burlamaqui, the program officer at the Ford Foundation working on reforming global finance.

On behalf of our president, Luis Ubinas, I welcome you again to the Ford Foundation. This is the second time that we have had the privilege of hosting this prestigious event, and Luis regrets that his traveling schedule did not permit him to attend.

We're delighted to have such distinguished guests joining us as speakers, as panelists, as moderators, and as an engaged audience. This year, as last year, the conference is immensely timely and pertinent. In the aftermath of the financial crisis, the debate is now squarely about economic recovery and financial reforms, and the conflicts between them—key themes for Hyman Minsky and for the Ford Foundation. In fact, a common theme for Ford and Minsky's approach is that both have long understood the key role of sound financial governance, and of financial stability that also looks to achieve poverty alleviation.

We have argued for some time that financial markets need the oversight of democratic institutions to ensure transparency and accountability. As it is, a small group of nations and institutions has been setting the rules and basically retreating from regulation. The result is a global financial system that is more unstable and unresponsive to the inequities of economic globalization. The reform financing initiative at Ford supports efforts to reform key global institutions to make them more transparent, accountable, and effective in delivering financial stability, development, and poverty alleviation. We want to bring new voices to the emerging global public dialogue, and to build alliances with academic partners, advocacy groups, global organizations, and national governments to ensure that these institutions advance the public good.

This conference, which we are proud to host with the Levy Institute at Bard College, is one step toward spurring the creative thinking needed to approach these issues from a multitude of angles. But among those angles, the Minsky approach bears special relevance as we face today's economic challenges. I'm confident that much will be said about that in the coming days, and we'll start right away on that avenue with Dimitri and Jan Kregel.

Let me just note three key elements in Minsky's vision and analysis that seem to be especially useful for the discussions to come. First, his Wall Street paradigm: Minsky's refusal to accept the distinction between a financial and a real economy and his insistence that in modern capitalism all corporations are first and foremost financial entities handling debt structures and cash flows, no matter what they actually produce. Second: the stock-flow method of analysis, or the importance of stocks in addition to flows in the dynamics of the economy and of their destabilizing effect in the financial system—especially, as we have seen, in unregulated finance. Third: destabilizing stability, the hypothesis that economic stability itself creates the conditions under which instability develops. All three points appear to have profound implications for both understanding the crisis and for addressing financial reform.

So let's begin the conversation about how to recast economic theory from the faith-based discipline, or religion, that it has become, where beliefs in axioms such as self-regulating markets and perfectly rational expectations are sufficient to guide both private decisions and public policy. Let's reshape economic theory as a moral science, as John Maynard Keynes stated long ago, with foundations in empirically grounded knowledge of how agents decide, markets work, and institutions evolve.

Now, to properly introduce the conference, here is Dimitri Papadimitriou, the president of the Levy Institute. Thank you very much.

DIMITRI B. PAPADIMITRIOU: Good morning. I, too, want to welcome you to the Levy Economics Institute's 19th Annual Hyman P. Minsky Conference on reconstituting the financial structure. I also want to take the opportunity to publicly thank the Ford Foundation, and especially Leonardo Burlamaqui, for supporting the Institute's program on reregulating the financial structure, and this conference—not only in providing guidance and financial support, but also in allowing us to host this conference at the Foundation's beautiful headquarters. And, of course, thanks go to my partner in this, Jan Kregel, who is a senior scholar and director of research for the program of monetary policy and financial structure.

As Leonardo indicated, this is a timely conference, and of course the secretary of the Treasury, Tim Geithner, indicated that this week appears to be the defining moment for financial reform.

Hyman Minsky, for over four decades of his professional life—first at Brown University, then at the University of California, Berkeley, subsequently to Washington University, and finally at the Levy Economics Institute until his untimely death in 1996—studied and documented the conditions that produced a sequence of economic booms and busts. Many of Minsky's colleagues in the academy, on Wall Street, and in the policymaking arena have come to recognize the depth of analysis and his theoretical contributions in understanding the workings of the modern and complex capitalist economy.

Minsky helped us understand how financial innovation reinforces the dynamics of speculative finance that decrease debt quality and increase volatility, both characteristic of current times. His insights into the transformation of borrowing profiles from hedge, to speculative, to Ponzi finance explain the driving up of investment and asset prices—that good times make participants in financial markets lose sight of unacceptable levels of risk and excessive leveraging.

Minsky was not surprised by the savings-and-loan and banking crises of the late 1980s and early 1990s, or of the Mexican and Korean adventures, and the Russian debt default. Nor would he have been surprised by the near implosion of the financial markets caused by the failure of Long-Term Capital Management in the late 1990s and the busting of the dot-com bubble in 2000. Being always ahead of his time, he predicted in 1987 the explosion of home mortgage securitization that eventually led to the meltdown of the mortgage-backed securities market. He was one of the few commentators who understood the powerful effects of securitization.

Minsky argued that securitization creates instruments that contributed to, first, the decline of traditional banking—narrowly defined as deposit taking and loan making—and second, since these instruments were freed from national boundaries, they became catalysts of the speeding up of the globalization of finance. He examined many previous crises that involved similar instruments, whether it be commercial paper, municipal bonds, or real estate investment trusts. He worried that, if these crises were successfully contained, as they have been so far, then risky behavior would be validated, setting the stage for subsequent crises that would become more frequent and severe.

Unlike other analysts who looked to causes relating to shocks and foolish policy, Minsky argued that the processes generating financial instability are natural and endogenous to the system. According to Minsky, the capitalist economy is conditionally coherent, and market forces, operating when a system is operating on any semblance of equilibrium, that equilibrium was basically transitory, as he called them, not at-equilibrium periods of tranquility.

The presentations and panel discussions in this year's conference are all very much Minskyan. Among the topics to be discussed are macroprudential supervision to limit systemic risk; how central the central bank should be—that is, the role of the central bank and that of the FDIC in regulating and supervising the financial system; what to do about increasing concentration in banking and the related too-big-to-fail problem; the role of the discount window; securitization reform; central banks, asset bubbles, and the containment of risk; the regulation of shadow banking; and, of course, many other related issues.

Minsky offered a number of proposals for reforming the financial system that addressed most of these issues. He preferred policies that encouraged equity finance rather than debt finance by eliminating corporate taxes that impute earnings to equity owners. He believed that bank size should be in concert with the size of firms with which the bank does business. He favored a policy that supported small- to medium-size banks, underscoring the importance of relationship banking rather than the originate-and-distribute model we have today. He always argued that the skeptical loan officer would assess the character of each individual borrower, and a relationship developed so that the borrower's performance would impact on his future access to credit. Minsky cautioned against banks being allowed to move activities off their balance sheets in order to economize on reserves and capital, and to avoid scrutiny. He was a strong supporter of the Federal Reserve's increasing its oversight of banks by expanding the use of its discount window, rather than relying on open market operations, to provide reserves. This is in line with the sort of policy adopted in Canada and elsewhere, which centers on lowering reserve requirements, decreasing the reserve tax on deposits, and paying interest on positive reserve balances.

Minsky also advocated the creation of a system of community development banks that would provide a range of financial services to underserved neighborhoods, thus decreasing or perhaps eliminating the unregulated business of fringe banking, such as check-cashing facilities or pawnshops. In later years, he favored the institution of a system of narrow banks that would offer deposits while holding only the safest of assets; that is, Treasury securities.

All in all, his proposals for reforming the financial sector were wide ranging and far reaching. The insights and powerful analysis of Minsky's proposals will be evident from reading the summary of his proposals that we have provided in the handout included in your folders. We have also provided summaries of the recommended policies to reform the U.S. financial regulatory structure as put forward by the Treasury, the Counterparty Risk Management Group III, the Financial Stability Forum, the Group of Thirty, the OECD; the Government Accountability Office; and the International Center for Monetary and Banking Studies in Geneva. These we have contrasted with Minsky's proposal. We hope you will find them useful as well.

I want to end by thanking you for coming, and to wish you a pleasant stay for the next three days.

Speakers

SANDRA PIANALTO

Federal Reserve Bank of Cleveland

Regulatory Reform: Lessons from the Front Line

The Minsky conference has long been known as a unique forum to discuss timely economic and financial issues, and this year is no different. The focus of this year's conference—"After the Crisis: Planning a New Financial Structure"—speaks to what we see every day in the headlines, as the U.S. Congress and governments around the world debate a wide variety of proposals to reform the world's financial regulatory structures.

Some say that major reforms can be enacted only following major crises—after conditions become "bad enough." History and human nature clearly confirm this view. What is less obvious is that hasty reactions following a crisis do not always solve the problem. In fact, they can often create new problems. If reforms are to be successful and enduring, they should reflect comprehensive assessments and analyses of the factors that contributed to the crises.

One need only look to the financial crisis that occurred at the turn of the last century in our own country for such an example. It was the market crash and panic of 1907 when things became "bad enough" for major reforms to be considered at that time. But it was also the findings and recommendations of the National Monetary Commission—which studied both the causes of the financial failures and structures adopted by other countries—that prompted the development of regulatory reforms and that ultimately [led to the establishment of] the Federal Reserve System.

I think it's absolutely true that "you cannot reform what you don't understand." Based on that truism, I will offer you some perspectives on financial regulatory reform based on the lessons I have learned, and do understand—lessons built on the front-line experiences we at the Federal Reserve Bank of Cleveland have lived through as banking supervisors.

At the Federal Reserve Bank of Cleveland, we have been engaged—as everyone else at this conference has been engaged—in studying the causes of the financial crisis and identifying opportunities for regulatory reform. In addition to our research and analysis, our proposals for reform have also been developed based on our front-line supervisory experience with the financial crisis. Through the thick of the crisis in 2008 and early 2009, our direct involvement in the supervision of banking organizations in the Fourth Federal Reserve District, and our knowledge of supervisory activities throughout the country, exposed gaps in the supervision of the financial sector that contributed to the crisis. Since then, we have been able to step back and examine the conditions that existed during those dark days and evaluate the circumstances behind them.

In my remarks today, I will first call attention to an important but sometimes overlooked aspect of regulatory reform: consolidated supervision. Second, I will describe the criteria we should use to define systemically important institutions and discuss a framework for ensuring that financial firms are effectively supervised based on the risk they pose to the financial system. Finally, I will explain why it is vitally important for the Federal Reserve to remain significantly involved in the supervision of banking firms of all sizes. Of course, these comments are my own and do not necessarily reflect the views of my colleagues in the Federal Reserve System.

The Importance of Consolidated Supervision

In the years leading up to the crisis, financial supervisors had been looking first and foremost at the risk profiles of the individual institutions that they had been responsible for supervising. This entity-based approach to supervision led to gaps in regulatory oversight, and the exposures within the broader financial system were underestimated as well.

As a result, many thoughtful observers have proposed that greater attention be focused on identifying a mechanism for macroprudential supervision, or what some refer to as systemic risk supervision—namely, supervision with an eye toward minimizing risk to the entire financial system. This concept has received a great deal of well-deserved attention in the regulatory reform deliberations currently taking place. I do not plan to elaborate on this concept today, other than to say I endorse it wholeheartedly.

Instead, I want to talk about another very important supervisory concept that has not received as much attention: the concept of consolidated supervision. To understand why I want to call your attention to this issue, let me first describe the banking structure in my Federal Reserve District.

In the Fourth Federal Reserve District, we are fortunate to have financial firms that vary considerably in size and structure—from small, noncomplex community banks to large, moderately complex regional firms. Of the 244 bank holding companies in our District, four are among the largest 25 domestic bank holding companies in the country. While our largest bank holding companies are not likely to be considered systemically important in their own right, their degree of complexity and risk pose considerable supervisory challenges.

These supervisory challenges became quite apparent during the crisis. Despite their smaller size compared with those firms typically considered systemically important, these regional firms were engaged in complex activities that resulted in a higher level of risk both to themselves and to the broader financial system. These regional bank holding companies and their affiliates were supervised by multiple federal and state agencies. All of these functional regulators were focused on supervising the individual entities for which they were responsible—and rightfully so. However, this entity-based approach to supervision created gaps in the oversight of the consolidated enterprise. As the various supervisors focused on the risks originated and faced by the particular part of the company for which they were responsible, it was sometimes difficult for bank holding company supervisors to identify the aggregate risk in the enterprise, and to do so in a timely way.

For example, think about the liquidity required for a particular entity in a holding company versus the liquidity needs of the overall enterprise. A liquidity level that may appear adequate for the needs of a specific entity—the bank subsidiary, let's say—may not meet the needs of the consolidated organization. Within the corporate structure, both bank and nonbank entities require funding to remain active.

Consolidated supervision would provide for the ability to identify the aggregate liquidity requirements and to develop a comprehensive supervisory plan that addresses the risks to the entire organization.

The Federal Reserve has already taken steps to sharpen our focus on enterprise-wide risk supervision, but I support legislation that would remove some of the constraints we currently face to obtain information from, and address unsafe and unsound practices in, the subsidiaries of bank holding companies. In other words, we should move toward consolidated supervision to ensure that the aggregate risks of the entire firm are identified in a timely way and that appropriate supervisory action can be taken, regardless of where that risk originates in the organization. Without consolidated supervisory authority, oversight gaps will continue, making it difficult to identify cross-entity risks within a bank holding company and to take appropriate action to mitigate those risks.

Identifying Systemically Important Institutions

In addition to learning firsthand the value of clear, consolidated supervisory authority, experience has also sharpened my thinking about the identification of systemically important firms. Let me be clear here about the goal: to put an end to the "too big to fail" problem. To achieve this goal, banking supervisors must be able to identify which firms are systemically important, and why. While the size of a specific financial firm is an important factor, it is only one of several factors that should be considered. Other important factors that need to be considered are contagion, correlation, concentration, and context—what we at the Federal Reserve Bank of Cleveland refer to as "The Four Cs."

Contagion can be thought of as the "too interconnected to fail" problem. If an institution is connected to many other institutions and firms—through loans, deposits, and insurance contracts, for example—all of those firms may collapse if the first firm fails.

Correlation can be thought of as the "too many to let fail" problem. Institutions may engage in the same risky behavior as many other institutions, and the failure of one institution may result in the closure of all those institutions engaged in that same practice.

Concentration can be thought of as the "too dominant to fail" problem. In these situations, an institution has a market concentration sufficiently large that its failure could materially disrupt or lock up the market.

Context can be thought of as the "too much attention to fail" problem. Because of market conditions and other conditions that exist at the time, the closure of a particular institution may cause panic and result in the impairment of other firms.

Thinking about systemic importance in the context of these four factors results in a more reliable and comprehensive identification of firms that, in and of themselves, may be considered systemically important for reasons beyond just their size. Size is a necessary, but not sufficient, criterion upon which we should determine systemic importance. The Four Cs—contagion, correlation, concentration, and context—must also be considered.

Establishing a Framework of Tiered Parity

When people discuss the composition of our financial industry, they often refer to just two categories—the large, highly complex firms generally referred to as "systemically important institutions" and "all others." But once we've identified those firms that are systemically important—based on their size and The

Four Cs—we are left with an "all others" category that I find to be too simplistic and that requires further refinement. Let me explain why.

My experience suggests that there is a middle tier of financial firms that poses a greater risk to the financial system than community banks and thus requires a higher degree of supervisory attention. So I believe that a multi-tier approach to thinking about our financial industry is very useful, and I have proposed a three-tiered framework called *tiered parity* that would have categories labeled "systemically important," "moderately complex," and "noncomplex."

The fundamental principle behind this framework is that the regulations and the approach to supervision for each tier would correspond to the degree of risk posed to the financial system by the firms within each tier. While we currently make some distinctions between firms of different sizes and complexity in terms of how we supervise, one objective of my approach is to draw even sharper distinctions than we do today. In the new framework, differences in treatment between the tiers would be based on differences in risk and complexity. Another objective of this framework is to ensure that institutions within each tier would receive the same regulatory treatment and supervisory oversight, so my approach incorporates parity of treatment within each tier.

Any institution that is identified as systemically important would be subject to stricter supervisory requirements, such as capital and liquidity standards, as well as close supervision of its risk taking, risk management, and financial condition. In addition, firms in this tier would be required to develop what some have called a "living will" that would provide for planned and orderly unwinding if necessary. The goal would be not only to limit the amount of risk these companies could pose to the financial system overall, but also to discourage the combination of size, complexity, and nature of operations that enabled them to become a systemic threat in the first place. All of these steps should help us to eliminate the specter of "too big to fail."

Firms in the first tier are systemically important by their very nature. Firms in the second tier—the moderately complex firms—can pose risk to the financial system under certain circumstances. In particular, a group of tier-two firms may exhibit common systemic risk characteristics, such as exposure to a specific type of risky asset that results in correlation among these firms, or together the firms may have a concentration in a particular activity.

Our supervisory approach to this group of moderately complex financial firms would be revised and customized to consider the risks they collectively pose to the financial system. Supervisors would conduct focused reviews of all the firms in this group at the same time to determine the degree of risk they pose and to ensure the consistent application of supervisory action, where warranted.

Last year's Supervisory Capital Assessment Program, or what some have referred to as the "large-bank stress tests," is an example of the successful application of this supervisory approach. In this process, firms with a common degree of risk were subjected to a unique supervisory approach that was considered appropriate for the degree of risk perceived at the time. What mattered most was not whether a firm was among the largest and most complex financial institutions, but whether it posed systemic risk under the circumstances. The review of incentive compensation practices currently being conducted on selected financial firms is another example of a practical application of this framework. Both of these examples illustrate that our supervisory approach has already been changing in response to identified risks.

The advantage of formally establishing the tiered parity framework is to identify the degrees of risk in financial firms before problems arise, and then to fashion regulations and supervisory approaches according to the risks posed by the institutions in each of the three tiers. Of course, the approach to supervision at any given time will need to be adapted to changes that occur in the economic and financial environment. The result will be a more refined, proactive, and effective approach to regulating and supervising our nation's financial firms.

The Ongoing Role of the Federal Reserve

I would now like to explain how my experiences during the crisis reinforce my view that the Federal Reserve should continue to supervise banking organizations of all sizes and should take on an expanded role in supervising systemically important financial institutions. Retaining our role in the supervision of banks of all sizes is vital.

Our nation's banks serve an extremely diverse range of customers, industries, and geographies. Their health is critically important to the communities and regions they serve. During the peak periods of strains in financial markets, these institutions looked to their Federal Reserve Banks for liquidity. As banking supervisors, we had a firsthand understanding of the safety and soundness issues facing banking companies. This information was critical to us in our role as lender of last resort, as we understood the particular liquidity circumstances they faced. And as the central bank, we recognized the risks to the economy of credit markets seizing up. Our experience enabled us to respond quickly. We adapted our regular discount lending programs to create an auction facility, and we provided for longer lending terms and more collateral flexibility—not just for the largest and most complex banking organizations, but for all banking organizations.

In my Reserve Bank, the economists worked closely with banking supervisors and discount window lenders to pool information, assess situations, and make decisions. And I can tell you that the knowledge, expertise, and direct access to information that come from our supervision and lending responsibilities contributed to our effectiveness in monetary policy. During the darkest moments of the crisis, this knowledge, expertise, and direct access to information were critical and could not have been developed at a moment's notice. Even today, the intelligence I gather from my banking supervisors is extraordinarily useful to me as a monetary policymaker in helping to identify factors that may pose risks to my economic outlook.

In turn, I also find that the knowledge that the Federal Reserve has about the economy and financial markets enhances our effectiveness as a financial supervisor. This wide range of expertise also makes the Federal Reserve uniquely suited to supervise large, complex financial organizations and to address risks to the stability of the financial system. No other agency has, or could easily develop, the degree and nature of expertise that the Federal Reserve brings to the supervision of banking organizations of all sizes and the identification and analysis of systemic risks.

Conclusion

Financial reform is not a new idea—we have seen examples of it following crises, and we have seen reform proposals during periods of relative calm. This financial crisis has unfortunately provided us with compelling reasons to press on with the regulatory reform agenda. As we do so, let's act on our best understanding of economic theory and the results of solid research. But let's also act on the basis of what we have learned directly from our firsthand experiences.

Thank you very much, and I look forward to your questions.

Q&A

Q: Could you explain to us how the Federal Reserve might have been at fault and what you've learned from the financial meltdown—what specific mistakes may have been made along the way?

SP: We recognize, first and foremost, the interconnectedness of the financial system, and that's why in my comments I [remarked] on the importance of identifying that interconnectedness and dealing with the risk across the financial system—that we had been very focused on individual institutions and the risks within an individual institution but failed to recognize that some of those risks were being repeated in many institutions. That's why this approach that I mentioned of having these horizontal reviews of institutions and the bank stress test was a good example of that. . . . The way we're structured now is that you have an individual set, a supervisory team, that looks at, and sometimes actually is housed within, an institution; but they don't have the benefit of seeing the activities of what's going on with other institutions. So with these horizontal reviews we're sending in teams of experts across institutions. In my district I mentioned the larger financial institutions. These teams of experts would go into each one of those, and not just be focused on the individual. So that will help us identify risks across the system. That's an important lesson learned in this process. . . .

I mentioned this too-big-to-fail issue, which absolutely has to be dealt with, . . . and so setting up a systemic risk or macroprudential supervisor that can be effectively supervising these more complex institutions—and I've laid out a framework for how we could identify those institutions—is another important lesson learned in this process, [that of] having the resolution authority in place to deal with these nonbank financial institutions that are systemically important.

So those are a couple of lessons learned.

Q: Why is it so politically difficult to consolidate the regulators? We've got the Federal Reserve, the OCC [Office of the Comptroller of the Currency], the OTS [Office of Thrift Supervision], plus all the state regulators—and that's just for the banking system. It's hard for me to think that the OTS and the OCC have big constituencies in Congress. Do you care to comment on it? Because it seems to me that that's a complement to your consolidated regulation of entities.

SP: I can't comment on why Congress finds it difficult. I can't put myself in their shoes. But my comment around consolidated supervision was not to say that we need only one regulator in an entity, because in an entity like even these regional banking firms that we supervise, they do have affiliates that are non-banking; they do some investment banking, they do venture capital. So it's fine to have functional supervisors of those activities, where they have more expertise; but my consolidated supervisory approach would provide—and the Federal Reserve is the umbrella supervisor for bank holding companies currently—more authority to act over the whole enterprise than we currently have. We currently rely on information from those functional regulators, and we do then also rely on enforcement of the action that we believe an institution should take by those individual regulators. There's a lot of negotiation that often goes on among the regulators when you're supervising a bank holding company, and having clearer authority to work with the functional regulator would make this consolidated supervision approach more effective.

The current structure of many regulators is not what I was trying to achieve with my consolidated supervisor approach. It was more [about] making sure that the appropriate regulator has the authority to take the enforcement action that's necessary. We have a dual banking system in this country [that] has served us well, and so you need a regulatory structure to meet the structure of the banking industry that we have.

Q: Why even bother having three tiers? Why not just make them all simple institutions, and you would eliminate this problem. From what I understand, most of the supervisors missed this, because the large institutions just simply had too complex balance sheets, and even if you had more supervision, they might still not catch all these problems. So if you want to get rid of too-big-to-fail, then just break them up now.

SP: We have a complex financial industry to meet the complex financial needs of the type of economy we have, so we need to be careful to not overregulate and remove market discipline from this situation.

You can be very prescriptive on regulations, and regulations are static. But businesses are dynamic, and we've learned over the years that when you put in place very strict regulatory requirements, individual institutions or individuals figure out a way around those requirements. It's not as simple as just [setting] up a set of standards that everyone has to meet, because when you do that, individuals will figure out a way around it. So you do need a flexible supervisory approach, a more flexible supervisory approach.

Having said that, you don't want the same requirements, perhaps—capital requirements, liquidity requirements, concentration requirements—for these very large institutions as well as these small community banks. We have thousands of community banks throughout this country, and they meet the needs of the communities they serve—small businesses, and consumers. So if you would place the same supervisory requirements on those very small institutions, the regulatory burden [would be too] great, and they don't require those types of supervisory requirements. That's why I'm proposing a more flexible, tiered approach to supervising these institutions, and the supervisory requirements within those tiers would be based on the risks that those institutions pose on the financial system. We need to be careful to not create a structure that is so rigid that individuals will figure out how to get around [it].

Q: You mentioned consolidated supervision. I agree with that statement, and I'd call it consolidated risk management, which is [approaching it] from the bottom up, basically. And all these things, the Four Cs that [you] mentioned, bits and pieces of those are really in Basel II also. So do you think that if we had already implemented Basel II [we] could have prevented us being in this crisis?

SP: There are a lot of issues. I don't want to speculate on what would have been if something else had been in place. I think this crisis does provide us an opportunity to learn from what happened and to move ahead with some of these more global efforts to address supervisory approaches.

We obviously had some challenges in agreeing on some of those issues, and hopefully this crisis, which ended up being a global financial crisis, will bring us back to the table to look at some of these issues. As a Reserve Bank president, I'm not involved in those conversations and those negotiations, so I can't speak to some of those specific issues. I'm just hopeful that, just as I've been saying here today, that this crisis has provided us a lot of lessons, and we can build on those lessons as we move forward—not only in developing a regulatory reform package for our own country, but also [in looking] at these issues on a more global basis.

Q: I'm with a company in Edmonton, Alberta, called Global Wealth Builders. I'm sort of where the rubber hits the road, you might say. We do portfolio management work. I have to tell you that we outside of your country who are looking at what's going on find it really quite frustrating, because we're now entering almost two full years since the debacle, and there seem to be no changes occurring to stop a repeat. From what we've read in the media and so forth, it appears as though the bank lobby is sufficiently strong to avoid [your] taking any real bitter pills to deal with the issues. I know that the typical investor out there who's buying stocks and bonds has lost his trust in the system. They're killing the goose. I guess I'm making a statement more than a question.

But what I wanted to ask you was, what about the hedge funds and the speculation that still continues, for example, in the commodity markets? Unquestionably, the price of copper and zinc and nickel are now the focus of the hedge funds and the investment banks in the commodities markets, which don't appear to be set up to handle the volumes of money that's being concentrated there. I'm not too sure it isn't pure manipulation, because it was only about 18 months ago we were paying in Canada six dollars a gallon for gas. We found out subsequently that it was manipulation, but there's been no change to the rules or the margin requirements. A little frustration from somebody that's investing money. . . .

SP: Again, I'm not a supervisor of some of the entities that you're referring to. I will say that the conversation and the reform proposals that have been put forth by various entities—Dimitri mentioned many of them—do recognize that this is not just a banking issue, and that this reform has to be broader, so that recognition and that learning [have] taken place.

Your comment about its taking a while leads me back to some of the comments I was making. It's important that we understand what we're trying to reform more fully before we put into place broad reforms, because we've learned from past experience that when you put into place very broad reforms hastily, you don't necessarily address the problems that you're trying to address, and often you spend years unwinding those reforms because you recognize that they were the wrong reforms to make. So taking some time to understand what we're trying to reform, I think, is useful. Having said that, I understand that we also need to make sure that we have a healthy financial system, and that we not cause or allow further crises and concerns to take place. . . .

Q: In your proposed consolidated supervision, do you also propose to supervise off-balance-sheet activities, or even better, forbid them? Because securitization and derivatives, these are things that contributed to the current crisis, and they're largely off balance sheet.

My comment is that, even if the Fed is in the position to supervise and regulate the financial system, the question is whether it has the willingness to do so, because it had all the powers prior to this crisis, and many things could have been prevented had it used its powers. So the question is whether the Fed has the willingness to regulate the financial system. Thank you.

SP: Your first question, about off-balance-sheet [activities]—and I'm speaking from the banking perspective—a lot of those activities, as a result of what has occurred in this crisis, . . . have had to be brought back on balance sheet. So, yes, that was a lesson learned for us—that, as supervisors, we were focusing on the balance sheet of the bank holding companies and the entities we were supervising, and we needed to recognize some of the risks that were taking place off balance sheet.

Your comment about the Federal Reserve taking on more supervisory responsibility, or do we have the will to perform the supervisory role, my answer is absolutely yes, we do. You say that we had the authority and we didn't use it. Many of the causes of what occurred, that brought on the financial crisis and that rippled throughout the financial markets, were taking place in the so-called "shadow banking" world, and we did not have authority over that world. So stepping back as supervisors and recognizing that there was activity off balance sheet for banks, that there was this shadow banking industry evolving, that's a lesson learned, and we need to focus on it.

[Regarding your] comments about the bank holding companies that we did have authority, as the bank holding company supervisor, to address, there are limitations to what we can do even within that bank holding company structure as the umbrella supervisor. So I'm recommending more authority to serve as the consolidated supervisor within this umbrella banking supervisor concept that's currently in place.

Q: All of us in the room, I'm sure, have read all the various proposals kicking around the Senate and Congress, [or learned about them in] the media and so forth, and from listening to your comments today also. One of the concerns I have is that the Federal Reserve itself, at least from what I can tell, hasn't taken much public responsibility for what has occurred. The mandate of 1913 that you described before is to stabilize our financial system, and that didn't happen. In fact, the failure was . . . a *catastrophic* failure. At the same time, the Fed would like to retain its independence, yet transparency disappeared the moment the crisis started, and there doesn't seem to be any accountability in a sense. I don't see dozens of senior supervisors who have resigned, or taken prolonged leaves, or whatever, on account of this. And I'm not trying to be rude here, but as a citizen of the nation and echoing a little bit the gentleman from Alberta, there's a frustration here. It's like, where's the accountability here?

SP: Let me start with the supervisory comment. The institutions that we supervised—and I can speak from my perspective—I mentioned some lessons learned from that process. But a lot of the institutions that we needed to step in to assist during the crisis, such as Fannie and Freddie, Bear Stearns, and AIG, were not institutions that we had supervisory authority over. So that's an issue that I would like to comment on.

In response to [your comment that] we have responsibility, a mandate for financial stability, as we saw the financial markets freeze up—again, not because of institutions that we supervise—we stepped in immediately and did unprecedented things. We used our emergency authority not only to assist in preventing failures of some systemically important institutions; but we [also] created facilities to get credit moving, to get credit markets working again, such as providing a facility for the money market funds where the commercial paper market had completely dried up and would have caused an even worse disaster than we were facing. We created liquidity facilities for banks; we created facilities for other types of credit markets. So I believe we took actions to stabilize the financial markets as we saw markets freezing up.

From a monetary policy perspective, again, we were very aggressive. We brought interest rates down to historic low levels, where they are today—essentially, zero. In addition, again, we took some unprecedented actions to expand our balance sheet to make sure we were providing the credit that was needed in the economy through our purchases of mortgage-backed securities and purchasing government agency debt. Those were all unusual, unprecedented, and historic steps that the central bank took to address the financial crisis that we were facing. I do believe that if we had not taken those types of actions that we might have seen a second Depression.

Q: You're living in a city that's just a few miles south of the border of a country that has actually come through the financial crisis quite well, and whose five large banks, in particular, have done very well. Of course, obviously I'm referring to Canada. My question for you is, what lessons can we learn from Canada?

I have two specific questions in that regard: first of all, Canada has consolidated banking supervision in what they call OSFI, the Office of … Superintendent of Financial Institutions, which is independent of the central bank. Second of all, they don't have a holding company structure for their banking companies the way we do in the United States.

I was at a conference last week where a couple of folks from Canada were there, and they made the argument that the structure of their banking companies is better because the traditional retail banking aspect of the company is kind of on top, and therefore the supervisors who are looking at the retail side of the bank and deposit relationships and so forth are well positioned to also monitor other activities within the bank, such as investment banking activities.

I'd be interested in what your thoughts are, number one, about Canada and how it supervises its large financial institutions; and number two, has the time possibly arrived when we ought to simplify the structure of banking companies in this country by collapsing the holding company structure down into the chartered bank?

SP: Your comments about Canada are interesting, but we always have to remember . . . that [the United States is] the world's largest economy, and we do have a more complex financial structure. We have more than 8,000 banks in our country; Canada, as you mentioned, has five large banks and some smaller thrift types of institutions, I believe. You know that structure better—you're nodding. But we have a more complex banking and financial structure, [and] we shouldn't just focus on banking. It's a much more complex financial structure. Therefore, we can always learn from other countries and how they regulate and supervise their financial institutions, but it's very difficult to find a country that has a structure that's similar to ours. So what works in a smaller economy in a country where it's less complex is not as easily transferrable to an economy the size of ours that has financial institutions that are world players, that are playing on the global markets. So that's one reaction. We can always learn and look at [other financial systems], and we are studying various proposals; but we have such a more complex financial system than even a country like Canada.

Your comment about changing the structure of banks: you know, this complex system of banking and finance has worked for our economy. You can say that this financial crisis showed us that it may have become too complex in some institutions; but in terms of our banking institutions, I don't think that this crisis showed me where we needed a change in charters or the structure of these organizations.

Q: I have a two-part question regarding your tiering of the regulatory system and how transparent that would be, specifically, whether you have concerns about those classifications setting off a few of your Cs—specifically, contagion or correlation—and also how you would deal with banks moving between those categories, because they went from being safe to innovating or offering increasingly risky financial products.

SP: I don't see problems with moving financial institutions into various categories, because . . . the reasons for some of these institutions being in that middle tier might change as circumstances change. We're going to have the same set of issues if we use what I'm currently hearing in some of these proposals that are out there, [the categories] of systemically important, and then all others. There are going to be, in the various proposals there are, either councils set up or . . . the Federal Reserve would be the systemic risk supervisor. But in the proposals that are both in the House bill and the Senate bill right now, there is a council that would determine the criteria for where a bank falls—whether an institution becomes systemically important. And it may be that it doesn't mean that once you are determined to be systemically important you are always going to be systemically important; [nor does it] mean that others can't be added. So the important part of this is setting the criteria, and then determining who meets those criteria.

I'm saying that we also need that type of look at this middle tier, where there are going to be some circumstances where these institutions could, as a group, pose a risk to the entire financial system. So making sure that we're looking at risks *across* these institutions through these horizontal reviews would prevent some of these problems that we saw during this financial crisis.

The other point I want to leave you with, as I mentioned in my remarks on this tiering, is parity across these institutions. Because if we adopt this framework within the Federal Reserve system . . . we have some flexibility in how we supervise the institutions that we have authority over; that's one thing. But there are going to be institutions that fall into those tiers that we don't have authority over, and the supervisors of those institutions may not use the same standards or have the same concerns that we would have. So it's parity across this tiering that's also important—making sure that institutions with the same amount of complexity and risks are supervised in a similar fashion.

JAN KREGEL

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Minsky Moments and Minsky's Proposals for Regulation of an Unstable Financial System

In a sense, this is going to be an advertisement from your local sponsor. What I'm going to try to do is present, in a very short and simple way, some of the basic proposals that Hyman Minsky made for reregulating the financial system.

We all know that, unfortunately, Hy passed away in 1996, and he didn't see the current crisis. It's extremely interesting to read the work that he produced in the 1960s [in the context of] reregulation today; it really reads as if he were alive during the latest crisis period.

A number of people have noted that the title of this conference is "After the Crisis," and perhaps this is a bit too optimistic. The basic idea is that [financial] crisis always produces some sort of regulation. We could have just as easily called it "Before the Next Crisis," because this was Hy's particular view: that every crisis would be followed by another crisis—in fact, that there was no way to regulate the system so that it would not inherently produce crisis.

Nonetheless, it's interesting that all of Hy's early work was in the area of regulation. One of the points that I would like to stress today in presenting Hy's approach is the very strange absence of a discussion of his work on regulation in the current debates—and this is, of course, one of the reasons for making this presentation.

If you look at Hy's early work, it starts out from sort of the opposite direction; that is, it starts out from regulation and policy, and then moves to economic theory. Basically … the genesis of his ideas [date to] a period that a number of you will remember, and that was the period of [financial] "fine-tuning." There was a very famous conference—if I remember right, it was held in Princeton—called "The End of the Business Cycle." Hy objected violently to the idea that the cyclical behavior of the economy could be eliminated. His argument was basically, well, perhaps the real economy, through fine-tuning, might be made stable, but even if we manage to do that, the financial system would nonetheless become unstable and produce financial crisis. This was the genesis of his idea that it's inherent economic stability that provides the basis for economic instability in the financial system.

Those of you who have been through the most recent period, we didn't call it the end of the business cycle; we called it the Great Moderation. And we presumed that, as a result of intelligent monetary policy by the monetary authority and by suitable regulation, it had been possible to produce not the end of the business cycle, but essential stability in the real economic system.

It did not last very long, and once again, Hy was right. The Great Moderation produced what Alan Greenspan has called by far the greatest financial crisis globally, ever, including the 1930s.

So the first point that I would like to stress is that Hy's approach starts from the idea that we want to have an economic policy that deals with the incipient financial crises that the system will continue to undergo. On the other hand, if we look at the way we analyze this regulatory structure, we use an economic theory that presumes that crises cannot exist. Hy's basic point is that "the risk characteristics of banking and the tasks of bank regulators are different in a world in which instability is a present danger than in a world in which markets are stable. If bank regulators are able to do a better job than in the past, it needs to be based upon an understanding of how our financial structure becomes susceptible to financial crisis," and we need … to be able to provide suitable regulations in order to dampen that crisis. For Hy, "Standard economic theory leads to the proposition that markets are equilibrating. It is evident that disequilibrating forces exist in the essential financing practices of a capitalist economy. These disequilibrating forces center in the financing of positions in capital assets and investment in progress. In time, financial practices lead to an environment in which financial crises can occur."

The idea was that it was necessary to replace standard theory, to replace the theory that said that markets are equilibrating—what Leonardo has called the belief or the religion in the efficient market hypothesis. Now, this is Hy writing in the 1960s. He's not writing today; but as I said, it reads as if it could have been written today.

So the first point is that the famous financial instability hypothesis, the Ponzi financing schemes, all of the explanations that we have had about Minsky Moments and everything else, in fact were generated by the need for a framework in which to formulate policy in order to try and dampen that kind of financial instability.

It's extremely interesting to look at the internal contradiction or, if you like, the dialectic, which is a term that Hy would have liked involved here, because what he was attempting to do was to formulate policy proposals that would produce increased stability while at the same time knowing that it was absolutely impossible ever in fact to produce that particular result. There will always be a dialectical process by which the system manages to use those regulations, or to overcome those regulations, and even if it did manage to create stability, that that stability would generate additional instability.

What Hy called "the fundamental question in economic theory is whether the development of such crisis-prone situations . . . are the result of correctible institutional flaws or due to policy errors. A quite common interpretation, . . . is that events like our current crisis"—again, remember, he was writing in the 1960s, not today—"are due to errors of economic policy management rather than inherent characteristics of the economy." We know these errors of economic policy management: the Fed kept the interest rates too low for too long; the regulators didn't apply the regulations appropriately. I would say, well, there's another explanation, and that explanation is that there are inherent characteristics of the economy that would have produced the crisis in any case.

This idea that it was errors of economic policy rather than inherent characteristics of the economy appears to be the same approach that is currently being applied to reform the U.S. financial system, which more or less is considered to have been disturbed by an unpredictable 100-year event; that is, it was a random process rather than an inherent characteristic of financing in an economy.

Hy talks about "financial distress." Financial distress occurs when an individual financial institution "cannot meet its obligations on its balance sheet liabilities." This may evolve into a "financial crisis," when a very significant subset of the economy is in financial distress" due to "'a slight disturbance' in money flows [that] creates such widespread financial distress that financial crisis is threatened." In this case, the economy exhibits "financial instability."

I don't want to go through his entire explanation of cash-in, cash-out, and the importance of matching cash flows in terms of the financing positions of institutions, but simply to make the point that the fact that all institutions depend effectively on other financial institutions in the system to be able to meet their financial commitments creates what Hy called financial layering, or what we now call financial interconnectedness. He says that at each stage in the evolution toward financial instability, financial intermediaries become more reliant on other financial institutions, such as banks, to refinance their liabilities—read SIVs from Citibank and Citibank's balance sheet. "A key to the generation of financial crisis is whether the holders of marketable securities, who have large-scale debts outstanding, can refinance, or must liquidate their positions when they need cash"—this is Lehman Brothers taking its Treasury securities and trying to repo them, and finding that there is nobody on the Street willing to give them one cent for a perfectly good Treasury security. "The worst thing that could happen to the solvency of any financial institution is a forced sale of its assets in order to acquire cash." This is what precisely happened to virtually every financial institution on the Street when Lehman found that it couldn't refinance.

Hy says that in order to avoid a financial crisis of this sort, should commercial banks refuse indirect accommodation to money and capital market institutions, "such access will have to become direct." What does he mean by *direct*? That the Federal Reserve will have to support these other financial institutions that would have depended on commercial banks. In fact, in the current crisis the commercial banks themselves had great difficulty in providing that support: "There is no reason why approved government bond dealers and approved finance houses should not have access to the Federal Reserve System now, when no crisis threatens." We saw what happened when the crisis *did* threaten. The Federal Reserve very quickly stepped up to provide support, not only to government bond dealers and approved finance houses but [also to] virtually everybody, or anyone who managed to open up a bank. In fact, there was a period in which people were buying banks precisely in order to be able to access direct support from the Federal Reserve.

"In addition to the Federal Reserve System, there are a number of other federal agencies that either insure the liabilities of financial intermediaries"—and here, Hy was thinking in particular of mortgage institutions—"guarantee the assets held by financial intermediaries, or act as a 'lender of last resort' to some class of financial intermediary. A number of these agencies center around the home mortgage market and the specialized home mortgage banks … Money has to be available when needed." Basically, what he's talking about here is that, when the government does give a guarantee—and this was [written] in a period before the quasi-privatization of the GSEs—when the government provides a guarantee, whether it's a guarantee to the FDIC or … to Fannie Mae, effectively it's the Federal Reserve that carries the can on that guarantee, because it will have to finance that government guarantee.

So the first, very simple proposition opened the window permanently. Minsky's basic recommendation in 1960, half a decade before the credit crunch that nearly bankrupted government bond dealers and the first financial crisis of the postwar period—we're now talking about the 1966 crisis, not the one from a year ago—and some 50 years before the current crisis, was to extend access to the Fed's discount window to primary security dealers and all other important financial intermediaries on a permanent basis. The Fed should simply abolish all of its various special facilities, its term lendings, its auction facilities, and open the discount window to all financial institutions on a permanent basis. This is a very simple procedure that, on my understanding, really does not require any congressional decision in order to be implemented.

If we look at the idea of financial information, tracking instability, together with the proposals for the expansion of the discount mechanism, Minsky proposed a method of bank examination that recognizes the importance of the time distribution of cash flow commitments and the ability of institutions to liquidate their cushions of safety—assets on a timely basis. This is what he called the "cash flow–oriented" bank examination process, "designed to focus upon the actual (past) and potential (near-term future) position-making operations of a bank, so that the Federal Reserve authorities could be aware of actual or threatened financial fragility. The perspective [is] . . . of a dynamic, evolving set of financial institutions and relations. All too often, it seems as if the Federal Reserve authorities have been surprised by changes in financial practices."

How can we remedy this? If we look first at the idea that we've just talked about, of opening the discount window, Hy also recommended increased use of the discount window rather than open market operations. Why? Hy believed that an important source of the information that was provided to the central bank came through the discount function; that is, if banks are continually forced to the discount window, then the central bank has a reasonably good idea of what the portfolios of the banks look like.

The United States system is one in which, traditionally, banks are outside the central bank. If we look at European systems, particularly the German system, the German system is one in which banks are traditionally *in* the central bank; that is, under the old Bundesbank system, the Bundesbank was continually discounting the assets of German banks so that the Bundesbank had a reasonably good idea (a) when the German banks were in difficulty, and (b) the kinds of assets that they were serving up to them for discount. That is, it did provide the kinds of information that the supervisor would require without the necessity of any formal increase in their supervisory powers, simply by opening up the discount window and making the discount function normal.

The . . . cash flow–oriented bank examination process . . . is a bit different from the kinds of transparency that we normally hear people talking about. Recently, I read a proposal by somebody who says what we should have is a one-to-one "network map" of every financial transaction in the financial system, and that, apparently, this is technically feasible. It probably *is* technically feasible. I keep saying that we have an NSA computer someplace in Maryland that is very busy monitoring our e-mail messages, and perhaps it could be better used in order to monitor financial transactions. So the computing capabilities are probably available. The question is, is it really necessary simply to monitor all of the transactions? Hy would have said no. What *is* important is to monitor the payment commitments; that is, to monitor the ways in which financial institutions believe they are going to be able to meet those payment commitments by selling their cushions of safety or by selling those reserve assets.

You could say that Hy was working in a system before we had generalized contingent claims and contingent commitments, but that doesn't make any difference. If a bank has a contingent commitment, if you have a liquidity put on an SIV, a cash flow–oriented bank examination process would ask the question of Citibank, "Should that liquidity put come back, how do you believe you are going to be able to meet that commitment?" The idea would be to look at potential market destructions that are created by the interrelationship of cash-flow-in and cash-flow-out commitments.

If we look at the role of the Fed as financial stability regulator, there's been a great deal of discussion about the necessity of the Federal Reserve maintaining its authority as a main regulator and also as the regulator of financial stability. We've had proposals for independent financial stability authorities, and the Federal Reserve has claimed that it is inappropriate to have an independent financial stability regulator.

Hy took a very strong position on the necessity of separating the idea of financial stability regulation and the idea of the regulation of the economy. His argument went something like this: that the use of monetary policy to restrict aggregate demand will lead to "an economizing of cash balances. In place of increased activity being financed in part by increases in the quantity of money, increased activity will be financed almost entirely by substituting debt assets of private units for money in portfolios (or the monetary system may sell government debt to private units and acquire private debt)." I am thinking more, again, about the period of the late 1950s and the early 1960s, when banks had very substantial portfolios of government debt.

"At every level in the economy, such substitutions imply that each unit is less well able to withstand an interruption in its cash receipts; a given interruption of cash flows, say, on an income account, will now lead to a larger amount of portfolio changes at all levels in the economy." In short, Fed policy to restrict expansion will encounter resistance in the form of financial innovation, which will largely offset it and create a more unstable financial structure.

Hy's basic idea, which we've already heard mentioned previously, was that a regulatory structure that is effectively too strict will in fact generate attempts to go around that structure through financial innovation, and that increased financial innovation will then produce increased financial instability. Again, he was working in a period when the Fed was primarily a regulator that was using tight monetary policy and increasing rates in order to dampen aggregate demand. That is, we're thinking of the period of the stagflation of the late 1950s, and then inflation of the 1970s. It's interesting, I think, to see that many people now [contend] that this particular argument is reversible; that is, it is also possible that interest rates that are too low may bring about financial innovations that also increase financial instability, so that, in fact, it works in both directions.

But the main idea that Hy put forward is that in order to eliminate the impact of restrictive or excessively expansionary policy on instability, the Federal Reserve's directive should be to operate to achieve short-term stability of the economy, and it should be replaced by a directive to keep stability in financial markets and provide money for growth. The day-to-day market operations of the money market should be replaced by easier and wider access to the discount window, at posted rates, to iron out temporary market difficulties. Open market operations should be undertaken in order to affect permanent increases in the money supply. Seasonal adjustments in the money supply should be the result of discount rather than open market operations. So again, there's this idea of bringing back the primacy of discount policy—which, incidentally, was at one time the case in Federal Reserve policy, before there was an argument that open market policy in particular, and operating open market policy on the short end, [were] the least disruptive to the efficiency of the market mechanism. That is, in the 1950s and the 1960s, it was normal for the Federal Reserve to operate even on the long end of the market, and there was a great deal of criticism because the idea was that this distorted interest rates and therefore distorted the efficient allocation of capital. This was one of the pressures to move increasingly toward open market operations, particularly open market operations on the short end of the curve.

"As long as the types of issues the government emits can affect the operation of the economy, and as long as the Federal Reserve System engages in open market operations as part of its control technique, it may be desirable to make the Federal Reserve System responsible for management of the government debt. This can be done by making the Federal Reserve System the owner of the entire outstanding government debt and having the Federal Reserve System issue its own debt in order to absorb 'reserves.' The Federal Reserve would be managing the debt and engaging in open market operations when it issued its own debt." This would avoid the recent activities, in which the Fed has had to engage in borrowing operations from the Treasury in order to accumulate additional amounts of government debt, in order to operate what it believes to be the upcoming exit strategy.

"To summarize, given the complex changing financial structure, the Federal Reserve System's role as a regulator of the economy should diminish, while the Federal Reserve System's role as a lender of last resort to the financial system should increase."

There is a part of Hy's work that has perplexed a number of people, and this deals with his treatment of inflation, in particular the relationship between the lender of last resort and inflation. I will try to give as simple an explanation of this as I can.

"Successful lender-of-last-resort operations can result in subsequent inflation, … because the debts that cause the trouble are now in another private portfolio, and if these private portfolios are to be made healthy, the underlying cash flows have to increase. And one way to increase these cash flows is to finance inflationary expansion. Inasmuch as the successful execution of the lender-of-last-resort functions extends the domain of Federal Reserve guarantees to new markets and to new instruments, there is an inherent inflationary bias to these operations; by validating the past use of an instrument an implicit guarantee of its future value is extended."

Basically, what Hy is saying here is that if through lender-of-last-resort intervention the Fed manages, through the discount window, to take up impaired assets, and then manages to stabilize the situation, and those impaired assets then go back into private portfolios, the only way those assets are going to be able to meet their financial commitments is if prices go up; or alternatively, if it's a quantity relation, or the amount of sales go up. Something has to change in order to allow the cash in to meet the cash out, because we started out with a situation [in which] cash in was insufficient to make those payments. So he quite simply argues that if the stabilization is going to be successful, one way it may be successful is by generating inflation. The second is that by validating certain instruments that have in general increased the liquidity of the system—and if we take the simple example of certain types of shadow banks that clearly did increase the liquidity of the system—were these institutions to become validated by Reserve policy, then the upward push to the degree of liquidity in the system would be associated, Hy would say, with an increase in prices.

But he then goes on to say that, "Unless the regulatory apparatus is extended to control, constrain, and perhaps even forbid the financing practices that caused the need for lender-of-last-resort activity, the success enjoyed by these interventions in preventing a deep depression will be transitory; with a lag, another situation requiring [intervention] will occur." He says that, yes, we may be able to manage the inflation problem if we set regulation appropriately; but nonetheless, we will have another bout of financial innovation and crisis. "The need for lender-of-last-resort intervention follows from an explosive growth of speculative finance and the way in which speculative finance leads to a crisis-prone situation. To avoid this, institutional reforms that constrain corporate external finance and the capability of banks and other financial institutions to support explosive situations may be needed." And this is, of course, precisely the challenge of reregulation of the financial system that we currently face in the United States.

A number of commentators have suggested that the Fed's recent intervention, in particular the expansion of its balance sheet in supporting a large number of financial institutions that were previously not subject to lender-of-last-resort access, will in fact provide an impetus for future inflation. Basically, if you look at it, they have adopted what appears to be Hy's argument, and have used that argument to claim that the Federal Reserve will not be able to exit from its lender-of-last-resort strategy without generating a massive inflation, or, in any case, without attempting to counter that massive inflation with a very sharp rise in interest rates.

The major concern here would be the presumed increased liquidity that is represented by the very large increase in unborrowed reserves in the banking system. But there's only one way that these reserve funds can become a source of validation of the floor on asset values that Hy was talking about; that is, if banks decide to lend to support the acquisition of impaired assets. It's unclear how this would produce an increase in demand for the underlying collateral. The Federal Reserve, by acting as lender of resort, implicitly placed a price under certain types of structured assets; but it did not place a price under the collateral behind those assets. House prices are still determined by the market; they are not determined by Federal Reserve policy. In order to produce any very large increase in demand for the underlying collateral, whether it's houses, or automobiles, or other consumer expenditures, would appear to require increased consumer spending at precisely the time when households are currently retrenching to rebuild balance sheets and banks are substantially restricting lending. So it seems very difficult to argue that the support that the Federal Reserve has provided will lead to any sort of increase in prices that might lead to the validation of the prices of these particular assets.

This has an upside and a downside. It says that we probably don't get goods inflation out of this, but it also says that perhaps the prices that we are currently using to mark these assets may still be excessively optimistic…. Rather than inflation being the biggest risk, it would seem to be the validation of financial practices that were the cause of the crisis that is the biggest problem. Thus, the need to control, constrain, and perhaps even forbid the financing practices that caused the need for lender-of-last-resort activity would seem to be the basic priority in any sort of exit strategy for the Fed, and for any sort of policy to ensure that inflation does not become a consequence of this activity.

We've already talked about Hy's idea of shifting the economic policy role from the Federal Reserve and [concentrating] the economic or financial stability role inside the Federal Reserve. This was part of a much larger approach to economic policy that Hy used, and in particular was based on the idea that the inappropriate financing of investment and capital asset ownership are the major destabilizing influences in a capitalist economy. Hy made this simple point. He said, "Look, capitalism is a private property system. All property has to be owned. Most capital assets are owned and controlled by people who borrow to do so, and this is the major source of instability in the system. Therefore, increasing the amount of capital investment simply increases the amount of debt. It increases the financial layering. It increases financial instability." Hy suggested that it would be appropriate to substitute employment for investment as the proximate objective of economic policy, as a precondition for financial reforms aimed at decreasing instability. This is probably one of the least noticed and most radical proposals for financial stability; that is, to shift emphasis from investment in growth to employment as a means of ensuring stability:

"The emphasis on investment and 'economic growth' rather than on employment policy, is a mistake"—this is not me, this is Hy, but I absolutely agree. "A full-employment economy is bound to expand, whereas an economy that aims at accelerating growth through devices to induce capital intensive private investment not only may not grow, but may be increasingly inequitable in its income distribution." Has anyone noticed the income distribution over the last 10 to 15 years? It may also be "inefficient in its choice of techniques, and unstable in its overall importance."

Hy argued that part of the focus on employment as the major objective of economic policy would be a direct government-funded employment guarantee program. You can ensure full employment in the economy if you provide the opportunity to each and every individual who is willing to work with a job.

This is the same sort of policy action we are currently starting to hear in criticism of the support of the mortgage crisis. People are starting to say, well, wouldn't it have been much more sensible to have direct intervention to allow households to be able to pay their mortgages, rather than trying to save the financial system first, in order to allow the banks to lend them more money for mortgages that they can't afford anyway.

Hy's point is that not only do you need direct intervention to allow households to pay their mortgages, but [that] they [also] pay their mortgages with employment. One of the basic sources of the default rates that have now spread from subprime mortgages into prime mortgages has been the very sharp increase in employment. The direct method, just as the direct method of [extending] lender-of-last-resort programs to financial institutions, the direct method of government employer-of-last-resort programs also puts a floor under incomes, and therefore puts a floor under asset prices, and therefore reduces the amount of financial instability in the system.

Hy argued very strongly in favor of what we call functional finance. We really shouldn't be worried about the size of the deficit; we should be worried about the impact of the deficit on the private sector desire to save. If we are in a condition in which we are rebuilding portfolios, in which households are rebuilding portfolios, banks are rebuilding portfolios, General Motors—well, General Motors, I'm not sure what they're doing, but we presume they're trying to rebuild—when the entire private sector is trying to spend less than it earns, unless the government uses its fiscal policy in order to allow that to occur, the only result is, as Alan Greenspan said, the greatest crisis ever, including the Great Depression.

The Federal Reserve has acted to provide direct lender of last resort to the entire financial system. As Hy said, this should be made permanent. We should do it now. But at the same time, we should recognize that asset prices and the stability of the financial system depend not only on being able to meet cash commitments because you can sell your cushions of safety assets in the secondary market; but also because the individuals who have borrowed the money can make those payments, and they can only make those payments if the system is at full employment. Thus, the substitution of employment for investment as the proximate objective of economic policy is a precondition for financial reforms aimed at decreasing instability.

Thank you very much….

Q&A

Q: Two questions here: one, what is the quid pro quo that you think Minsky might have offered or put in place here to prevent the Fed, once you expand its lender-of-last-resort or discount window function, from becoming the big garbage can for private portfolios? A lot of assets have been put to the Fed that are questionable assets. Would he have said that's a good thing, … or is there some sort of quid pro quo that needs to be there for private portfolios that are being dumped into the Fed? …

With respect to opening and widening the discount window itself, isn't that what the Fed was doing in an ad hoc fashion by creating all these special lending facilities? And didn't that fall short because it took until March, when the Fed went on the offensive and escalated quantitative easing to a trillion-plus dollars, before private investors believed the Fed had a credible strategy to turn the asset market conflagration around? … Is there a necessary offensive position in terms of stabilizing asset prices that we actually saw demonstrated here that needs to be in place too?

JK: Very quickly, I'm going to go back to Hy's comment in which he says we should do it now, before the crisis hits. Hy's idea was that if the facility had been available, then these problems would not have arisen. One of the criticisms that Hy did not make but that I have made is that the Fed was simply too late in applying these mechanisms. Effectively, … they ended up doing precisely what Hy said: you have to open the window to every institution in the system. In fact, as I mentioned, they managed even to get beyond financial institutions to some nonfinancial institutions.

Hy's argument would have been, had this been available previously, that you would not have had this sort of ad hoc decision making that went on. A large proportion of the assets that the Fed did acquire were acquired, effectively, because there was no uniformity in terms of the application of the opening of the window, which effectively created more uncertainty and reduced the effectiveness of this policy. If everybody had known the window was there, everybody would have gone that much earlier. And this goes back to this idea of information. That is, if you are taking toxic junk to the Fed, the Fed presumably can recognize [it] for what it is, and … then you have a very strong indication that there's something wrong in the system. This is also what Hy said about the information aspect of having the discount window open, because the Fed then has an eye into what the banks' balance sheets look like….

Apparently, the New York Fed has produced an internal report that said basically that, although there were something like 40 or 50 regulators inside CitiGroup, they had absolutely [no] more clue than Robert Rubin supposedly had about the operations of the bank. This is something that probably could have been resolved if, when Citi saw it had difficulties with SIVs and they pulled him back on [board], they had gone to the Fed and said, "Look, here's what we've got. Here's what we need to cover the hole. Will you give it to us?" The Fed would have said, presumably, "Yes, we will," but it then would also have said, "What else have you got hidden on the balance sheet," rather than waiting. Because, if you remember the way the crisis unfolded, we're talking about the famous mysterious SIVs coming down in something like March, April, May of 2007. They started out as rumors, and then I presume most of you, like myself, started looking through Citibank's SEC reports, trying to find where these things were. And you discovered that they were not there, except you found notes that said that we do have these off-balance-sheet exposures for variable interest entities that you had no idea what they were. That, I think, would have quite reasonably solved that particular problem.

Q: I love the idea of full employment—employment of last resort, essentially. But is this no longer a capitalist economy?

JK: I don't know. Are we now in a capitalist economy? This becomes the basic question.

No, the idea is that if the government does play this particular role, it has really very little to do with whether or not you have private enterprise and private initiative. What you're saying is that the government, if the private sector is unable to provide full employment for the system and is unable to provide financial stability for the system through the policies that Hy talks about, by simply trying to support investment in economic growth, then the government has a responsibility for providing an economic support. Now, we already take a moral responsibility through unemployment insurance. We take moral responsibilities in all sorts of other areas. Social policy is part of a moral responsibility. Hy is simply saying, “Is it more sensible to do this by offering gainful employment, or should we continue to do this simply in terms of charity, out of our moral being?” And Hy simply says, “Look, this is something that will contribute to the financial stability of the system. Therefore it makes sense. It’s not charity in this sense; it is part of normal, rational economic policy.”

The capitalist system, as we note, when it does not provide full employment, very quickly ceases to look much like a capitalist system. That is, either you end up with the financial system being owned by the government—and many people have argued that this was the socialization of the economy—or … you allow the private sector to continue to operate in ways that continually produce financial instability and require the government to continue to come in as lender of last resort. Because there is, I think, absolutely no question that there is no central bank president or chairman of the Federal Reserve, either in history or in the future, who, when faced with the necessity of intervening to support the financial system, would say no because he believed this in some sense contravened the private enterprise system. All you have to do is to read Alan Greenspan’s biography. Every time he comes up with a choice in which he says, “Yes, well, I have to decide here between fighting inflation and saving the system,” what did he do? He engineered a way in which he saved the financial system. He opted for the financial system. And the question is, how do you do that?

The way that policy supported financial stability was precisely what Hy said it was; that is, it continued to validate practices that increased financial instability, and eventually it came home to roost, and the government did have to intervene.

Q: You were close to Professor Minsky—that’s my understanding. If Professor Minsky were alive today, would he call the recent financial crisis and the Great Recession a gratuitous, unnecessary tragedy? That’s question number one.

Number two: go back, say, 13 years ago, 12 years ago, when the Asian financial crisis occurred. Then, the president, the treasury secretary, and the deputy treasury secretary, now chief economic advisor to Mr. Obama, made great speeches [about our needing] a new global financial architecture. That oratory died out about two years later…. [Is there a] similar situation now; that is, the oratory calling for [a] new financial system will die out in a couple of years?

JK: Unfortunately, it may already be dead. Certainly, it would have been a gratuitous strategy…. Hy would have said, “Look, I pointed all of this stuff out in the 1960s.” As I said, much of what he wrote you can read as if it were written today; that is, the idea that somehow or other market efficiency is going to produce the kinds of stability results he questioned, bottom line. What we’ve had, as I said, is basically a repeat of what we had in the 1950s and the 1960s. We had the Great Moderation, we had the belief that you could stabilize financial markets, the belief that you could stabilize the real sector of the economy, and the entire logic of the argument that said that we don’t have to intervene in order to stop financial bubbles because we believe that we can react to those financial bubbles and stop them in a way that does not produce any damage [to] the economy. Hy would have said [that] is absolutely impossible. So, clearly, it would have been gratuitous. It is really unfortunate that some of what are really very simple propositions and very simple arguments that descend very logically from the idea that you do have in the financial system these forces that do normally generate instability. As I said, if you believe the opposite, if you believe the system always eventually creates stability, then you're going to have the wrong regulation and you're going to have the wrong policy. And basically, this is what we had, starting from the Reagan administration. The entire period from then on was based on that premise, and we now see the results on that.

In terms of the global financial architecture, as you know, that discussion has now come back, and obviously the financial regulation discussion will come back. It may come back because the crisis is not really [behind us]—there are a number of people who believe that there is a second or third leg coming in this crisis—so I think there will be more financial regulation.

I always like to refer back to the 1930s. The stock market crash was in 1929. The real economy crash came in '32, '33. It took four years to get any sort of serious discussion going about financial regulation, and it also took … a congressional commission … to enrage public opinion sufficiently to generate support for this. Now whether Mr. Angelides's commission [Chairman Phil Angelides of the Financial Crisis Inquiry Commission] is going to be sufficiently efficient at generating that sort of outrage in order to provide the impetus for regulation is now unclear; but simply the fact that the response has not been immediate I think is important. As President Pianalto has already said, it's important not to react too rapidly. There may be hope that we eventually do meet the challenge.

Q: I do believe that Minsky is as relevant as can be today, but the devil lies in the details. And the key devil to me in terms of financial stability is the functioning of the lender-of-last-resort mechanism and the discussion that you pointed us to in terms of the distinction between, on the one hand, the discount window, and on the other hand, open market operations. I don't think that open market operations are necessarily lender of the resort, so they're not necessarily comparable alternatives. I think that in the dialectic between the two you can see also, perhaps, an artificial distinction, given what the Fed had to do to actually step up to this crisis and expand the lender-of-last-resort mechanism in many, many different directions.

But there are some inconsistencies where Minsky's work in the early '60s is not as easily applicable today. For example, open market operations do have the huge advantage of monetizing debt, and that might be a crucially important thing to have when you want to have this employment guarantee program. In that sense, the United States is in a much better situation than, for example, Europe, where the European Central Bank can do defensive open market operations, but not dynamic open market operations in terms of debt monetization. Therefore they have an earlier second-leg crisis in terms of government debt than we will have. We will have it too, but we'll have it differently. I want you to comment on that second leg of the crisis and the usefulness of open market operations in that regard, especially in the long term, as we expand the role of government toward employment guarantee programs.

The other thing is that perhaps these distinctions are no longer that crass, because, in a way, open market operations function today like a very expansive kind of discount lending window anyway. You have the primary security dealers, and the Fed deals with them and conducts open market operations in that sense, and that's sort of an approach toward the group of systemically important institutions, if we think of the primary security dealers as the leading group of systemically important institutions. If you have a discount window and you extend it [on a case-by-case basis] to get a look into the soul of a bank, then you also have the other side of the problem, which is that this individualized approach does raise the issue of moral hazard. If you give a sort of preannounced guarantee that anybody can come anytime and dump anything—I mean, I don't like the conservatives' argument of moral hazard…, but there is a propensity to risk taking. So the last question, in terms of that type of lender of last resort [action], is, don't you then have to be prophylactic and try to avoid crisis in terms of the financial stability by not letting banks get out of hand and getting a [handle] on financial innovation, getting a synthesis to this regulatory dialectic by making financial innovations a constant subject of regulation? Just like the FDA approves … new foods and drugs, we need some kind of FDA for financial innovations.

JK: Okay, two things: one of the difficulties in assessing this is, quite obviously, that as a result of the recent crisis, we tend to confuse the idea of the extension of lender of last resort with the extension the Fed … made after the crisis [broke]. As we've already heard this morning, the Fed acted also in terms of monetary policy, so that, number one, I would have to presume that when Hy was thinking about the extension of the lender-of-last-resort function, he wasn't thinking about a case in which you have 24, 25 basis points, zero bid, at the interest rate. That is an anomalous situation that occurred. Why? Because the policy had not been introduced on a prior basis. If you [had] had this lender-of-last-resort facility in general existence prior to the crisis, then you would have had the normal sorts of … quid pro quos [in place]. It's not that you take anything at zero cost. You only did that because you opened the window after the crisis existed. Had you done it before, then the situation would have been rather different.

The other point that I'd like to stress is that … there was also Hy's proposal that, effectively, the Fed would take on the government debt; that is, the government debt effectively would be sitting on the Fed's balance sheet, and the Fed would have the possibility of issuing its own debt. There are a number of European banks that had this facility before the ECB was created; indeed, the Bundesbank at one stage had to petition the German government in order to allow it to do this because traditionally the German government ran surpluses so that there wasn't any government debt, and they needed some debt in order to intervene in the market.

So, obviously, I don't think Hy was arguing that one replaces the other, or that either substitutes for [the] other…. As you look at the passages I read, both had their particular role and their particular importance…. As you recall, he said that if you want to generate a sustained expansion in the money supply, you do that by operating through open market operations, and you do it in terms of dealing with government debt.

There's much to argue that the distinction we make between the Federal Reserve and the Treasury, because of institutional factors, is in fact a false distinction. We've seen this increasingly in the [recent] crisis, in which the Fed and the Treasury have more or less melded into a single institution in terms of responding to the crisis. It also makes a great deal of sense analytically, and particularly in terms of looking at the impact of government debt on the balance sheet of the Fed and [on] operating monetary policy to consider the two on a consolidated basis.

So I would make a second proposal for consolidated supervision and accounting; that is, the Treasury and the Fed also become consolidated for that purpose.

Q: I loved your channeling of Professor Minsky, and I loved the ideas about the lender-of-last-resort function and the discount window, because I think they've been essential during this crisis here. At one point, through all programs [the Fed] had about $1.6 trillion in loans out. It's all collateralized lending. It's a little bit false to say that we're accepting junk or toxic assets on those loans…. It's not really the case.

You guys don't have to worry about that. Those were all repaid; all those programs are more or less shut down—not quite, but almost all are shut down now. We actually made money on that, so that part of the response to the crisis, in an era when a lot of things went wrong, went pretty well.

The … discount window—of course it's for banks only: that's the way it's been set up…. So opening up the discount window to all financial institutions is exactly the opposite of what a lot of the reform proposals are talking about. They're talking about constricting, in many ways, the Fed's ability to carry out this lender-of-last-resort role. I'm going to argue tomorrow that that's going in the wrong direction, especially the 13(3) provision, which is exactly the provision that says, okay, you get into a crisis, you can lend to whoever you want. That is what everybody seems to want to shut down. So I just wonder if you could comment or amplify a little bit more what implications would this have for 13(3), or would you just eliminate 13(3) and say—Because there is a big issue about what kinds of institutions are you talking about. Are you talking about any institution in the economy?

JK: You know as well as I do, in the history of 13(3) there was a stage at which shoe companies could in fact be considered eligible under that section…. To me, it's interesting that Hy made these proposals, first, in a paper for the Commission on Money and Credit, and second, in a Federal Reserve–sponsored study on reform of the discount mechanism, and somehow or other they just disappeared. Everybody has completely forgotten about these things. So I think there is, presumably, some resistance inside the Fed as well that this is not an appropriate form of action. I'm very encouraged to hear that there is an alternative view, at least in one of the district banks, that this is potentially important. The response simply would be that, if you look at where you want to draw the line, we still do have a reasonably sharp line [drawn in] the so-called money and commerce debate. If you go back to the 1980s and think of the discussion that we had on reform then, the Corrigan Report and things of that sort, the basic issue there was, do we allow private nonfinancial firms to own financial institutions? As far as I know, that divide has held fast throughout, and as long as that holds, then you've sort of solved the problem of what section 13 can do. Okay, if we have a regulation that says we prevent nonfinancial firms from owning banks, then we know precisely what the financial institutions that the Federal Reserve discount window would be open to support are.

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Minsky Moments and Financial Regulatory Reform

Recent examinations of the leaders of Wall Street and big banks by the Congress and the Financial Crisis Inquiry Commission bring to mind a quip reputedly made by Napoleon Bonaparte: "Never ascribe to malice that which is adequately explained by incompetence."

As a prominent investor from Omaha once remarked, it is indeed amazing what is revealed when the financial tide goes out: Many who were presumably cloaked with unique insight and thought to be worthy of enormous fees and compensation packages were revealed as having nothing on. This is not because they were bad people but because they were unawares. They either failed to read history or believed they were exceptional and could avoid repeating it. Little did they know they were, in fact, *un*exceptional. They were simply swimming with the flow of history—unwittingly leading the financial system and the economy onto the shoals, only to be revealed as "incompetent" when the storm subsided, the tide withdrew and Congress and journalists and analysts began to sift through the wreckage.

Charles Mackay documented much of what we have just experienced in his classic 1841 tome, *Memoirs of Extraordinary Popular Delusions.*[1] Washington Irving wrote of it in *The Crayon Papers* of 1890, describing the Mississippi Bubble of 1719.[2] If you wish to read the CliffsNotes version of these historical antecedents, find yourself a copy of John Kenneth Galbraith's *A Short History of Financial Euphoria*, written in 1990, and mark these words:

> The circumstances that induce the recurrent lapses into financial dementia have not changed in any truly operative fashion since the Tulipomania of [1636]. Individuals and institutions are captured by the wondrous satisfaction from accruing wealth. The associated illusion of insight is protected, in turn, by the oft-noted public impression that intelligence … marches in close step with the possession of money. Out of that belief … comes action, the bidding up of values, whether in land, securities, or … art. The upward movement confirms the commitment to personal and group wisdom. And so on to the moment of mass disillusion and the crash. This last [development] … never comes gently. It is always accompanied by a desperate and largely unsuccessful effort to get out.[3]

The fact is that in the world of financial panics, nothing is new under the sun. Financial dementia is a recurring theme throughout history, and excessive leverage is always its causal agent. Levered asset prices always overshoot during booms and overcorrect during busts. Those hailed as financial mavens during speculative bubbles are transmogrified into hapless mortals when those bubbles pop. As financial commentator John Cassidy recently observed as the first lesson from the demise of Bear Stearns, "Leverage kills."[4]

At some time between Mackay and Irving—and well before Galbraith—John Stuart Mill pointed out the obvious: "Panics," he wrote, "do not destroy capital. They merely reveal the extent to which it has previously been destroyed by its betrayal into hopelessly unproductive works."[5]

The patron saint of this assemblage, Hyman Minsky, understood the cycle of financial "revelation" documented by Mackay and Irving and Mill and countless other predecessors of Galbraith and, more recently, Michael Lewis.[6] Minsky assigned it a taxonomy: His classifications for leverage encompassed "hedge borrowers," "speculative borrowers," and "Ponzi borrowers."

Minsky understood the progression toward the Ponzi side of the equation that ensues as the game continues and the market accommodates the "betrayal" of capital into "hopelessly unproductive works." The Ponzi borrower works under the assumption that price appreciation will hide cash flows that cannot cover credit obligations (less erudite observers refer to this as the bigger-fool theory). Minsky warned of the denouement of this complex evolution of levered speculation: The domino effect goes into reverse, infecting even the most sound of investments and leading to a financial crisis and economic contraction.

During the Russian financial crisis of 1998, Paul McCulley of PIMCO coined the term Minsky Moment—which he used to describe the moment of epiphany when the lightbulb goes on and the market recognizes the jig is up for Ponzi borrowers. I call it a Wodehouse Moment. For it was P. G. Wodehouse—by no means an economist and someone who wouldn't have known a PIMCO from a Pimm's Cup—who effectively summed it all up when he observed: "… just when a [fellow] is feeling particularly … braced with things in general … Fate sneaks up behind him with a bit of lead piping."[7]

Today, as we meet to address the theme of this conference—planning a new financial structure after the crisis—I would like to address some matters you might consider to mitigate the destruction that the lead pipe of Fate inevitably metes out in financial cycles.[8]

Even as we accept that markets and market operators are given to volatility and panic, we also know from repeated experience that market failures that roil the financial system can have disastrous repercussions—setting off an adverse feedback loop of contracting credit flows, declining economic activity, and sustained, high unemployment. This reminds us of the vital role money and well-deployed credit play in maintaining a healthy economy. I liken it to the cardiovascular system. In an economy, the central bank is the heart, money is the lifeblood, and financial markets are the arteries and capillaries that provide critical sustenance to the muscles that are the makers of goods and services and the creators of employment. A properly functioning cardiovascular system fosters healthy growth; if that system fails, the body breaks down and the muscles atrophy.

That is what happened in the most recent crisis. Elaborate statistical models and complex securitization products created the illusion of control over credit and liquidity risk in the banking and credit system. They proved to be shills for Minsky's Ponzi borrowers. Misperceptions of risk and misplaced incentives led to misguided actions. As market participants uncovered the truth and the Minsky/Wodehouse Moment came—as it always does, however late—confidence quickly gave way to fear and doubt. With uncertainty in full fever, cash was hoarded; counterparties, already complicit in financing or insuring "unproductive works," viewed each other with suspicion; no business, productive or otherwise, appeared worthy of financing. Galbraith's "moment of mass disillusion" struck. A full-blown seizure occurred. The economy, starved of the lifeblood of capital, shut down.

By now, I suspect many share my conviction regarding the need for improved financial regulation, including those who only a few years ago proclaimed the transcendent efficiency of financial markets—what I refer to as "the elaborate conceit of efficient market theory"—where today's prices are always right, markets are self-correcting, and regulation is best kept to a bare minimum.

In theory, the Fed's monetary policy and regulatory functions are separate. In practice, they are anything but—rather, it is a symbiotic relationship. The past two years have highlighted the interconnections of monetary and regulatory policy: Monetary policy depends upon regulation that ensures the soundness of financial institutions.

Changes in the federal funds rate and other methods employed to implement monetary policy get transmitted to the economy through the arteries of the financial sector, affecting the rate at which businesses produce and grow employment, the exchange rate of the dollar and, by extension, international trade and capital flows. The process works most efficiently when those arteries are open and healthy and strong. Sick banks cannot lend and properly act as intermediators. When they cannot lend or are otherwise hampered, monetary policy actions lose their capacity to influence the economy with accustomed efficiency.

Here is the message for those who would peel away regulatory policy from the Fed: We depend on our regulatory arm to provide in-depth, hands-on assessments to guide us as we perform our duty as the lender of last resort. We can't properly operate a discount window or perform the functions of lender of last resort if we don't have firsthand knowledge of our borrowers' financial health. We cannot implement monetary policy effectively without staying abreast of developments in the banking and financial system through the eyes and ears and constant contact of the 12 Banks in our System that observe up close and personal the activities of banks of all sizes—from the roughly $1.7 trillion in assets of the 844 state member banks we regulate to the roughly $16.8 trillion in assets of the nearly 5,000 bank holding companies we regulate (which include but are not exclusively large financial institutions, or LFIs).[9]

During a crisis, you need the ability to make the proper decisions quickly. It is simply impossible to properly evaluate the health of a potentially troubled borrower with information generated by another agency. This was one of the harsh lessons learned from examining the entrails of Washington Mutual and Lehman and AIG, over whom we had no regulatory oversight at the time they went into cardiac arrest.

Current proposals being discussed in Congress would shrink the Fed's regulatory and supervisory responsibilities by placing all state-chartered banks under the Federal Deposit Insurance Corp. and all nationally chartered banks and their holding companies under some new regulatory agency, leaving us either with no regulatory oversight or solely with regulatory oversight of LFIs. In my view, these proposals are misguided. In keeping with my cardiovascular theme, I have argued that removing the Fed from supervision and regulation of banks of all sizes and complexity—from community banks to the most complex LFIs—would be the equivalent of ripping out the patient's heart, noting that it would surely prevent another heart attack but would likely have serious consequences for the patient. Our job is to keep the patient healthy and prevent another attack—something you cannot do without the ability to monitor the patient's health. The best way to do that is to keep the Fed in banking and financial supervision.

I mentioned LFIs. A truly effective restructuring of our regulatory system will have to neutralize what I consider to be the greatest threat to our financial system's stability. You discussed this topic this morning—I refer to institutions that are considered "too big to fail."

In the past two decades, the biggest banks have grown significantly bigger. The average size of U.S. banks relative to gross domestic product has risen threefold. The share of industry assets for the 10 largest banks climbed from almost 25 percent in 1990 to almost 60 percent in 2009.

Existing rules and oversight are not up to the acute regulatory challenge imposed by the biggest banks. First, these large institutions are sprawling and complex—so vast that their own management teams may not fully understand their own risk exposures, providing fertile ground for unintended "incompetence" to take root and grow. It would be futile to expect that their regulators and creditors could untangle all the threads, especially under rapidly changing market conditions. Second, big banks may believe they can act recklessly without fear of paying the ultimate penalty. They and many of their creditors assume the Fed and other government agencies will cushion the fall and assume some of the damages, even if their troubles stem from negligence or trickery. They have only to look to recent experience to take some comfort in that assumption.

Some argue that bigness is not bad, per se. Many ask how the U.S. can keep its competitive edge on the global stage if we cede LFI territory to other nations—an argument I consider hollow given the experience of the Japanese and others who came to regret seeking the distinction of having the world's biggest financial institutions. I know this much: Big banks interact with the economy and financial markets in a multitude of ways, creating connections that transcend the limits of industry and geography. Because of their deep and wide connections to other banks and financial institutions, a few really big banks can send tidal waves of trouble through the financial system if they falter, leading to a downward spiral of bad loans and contracting credit that destroys many jobs and many businesses, creating enormous social costs. This collateral damage is all the more regrettable because it is avoidable.

These costs are rarely delineated by analysts. To get one sense of their dimension, I commend to you a thought-provoking paper recently written by Andrew Haldane, executive director for financial stability at the Bank of England.[10]

Haldane pulls no punches. He considers systemic risk to be "a noxious by-product" or a "pollutant" of an overconcentrated banking industry that "risks endangering innocent bystanders within the wider economy." He points out that the fiscal transfers made in rescuing or bailing out too-big-to-fail (TBTF) institutions—whether they are repaid at a profit or not—are insufficient metrics for costing out both the damage of their mismanagement and their subsequent rescues. Like me, he puts things in the perspective of the entire cardiovascular system and the body of the economy. He concludes: "These direct fiscal costs are almost certainly an underestimate of the damage to the wider economy which has resulted from the crisis."

Haldane points to the shrinkage in global output compared with what output would have been in the absence of the crisis that metastasized within the TBTF institutions, arguing that "evidence from past crises suggests that crisis-induced output losses are permanent, or at least persistent, in their impact on the level of output." He calculates that, in money terms, the persistent world economic output lost relative to what would have obtained in the absence of the recent crisis might be $60 trillion or more. That's $60 trillion with a *T*—more than four years' worth of American economic output.

To be fair, the author acknowledges that computed output losses may significantly overstate the real social costs of TBTF—that it may not be fair to take a kitchen-sink approach to the costs incurred by letting these institutions lumber on and then be rescued. Regardless, the message is clear: the existence of institutions considered TBTF exacerbated a crisis that has cost the world a substantial amount of potential output and a whole lot of employment.

Haldane also looks at other social costs—among them the funding advantage associated with TBTF institutions, which has widened during the crisis and, according to one reputable study he cites, amounts to $34 billion a year for the 18 largest U.S. banks.[11]

I will let you read Haldane's study and form your own conclusions. For me, it simply adds grist to the mill of my conviction, based on my experience at the Fed, that the marginal costs of TBTF financial institutions easily dwarf their purported social and macroeconomic benefits. The risk posed by coddling TBTF banks is simply too great.

To be sure, having a clearly articulated "resolution regime" would represent a step forward, though I fear it might provide false comfort: Creditors may view favorably a special-resolution treatment for large firms, continuing the government-sponsored advantage bestowed upon them. Given the danger these institutions pose to spreading debilitating viruses throughout the financial world, my preference is for a more prophylactic approach: an international accord to break up these institutions into ones of more manageable size—more manageable for both the executives of these institutions and their regulatory supervisors.

It would obviously take some work to determine where to draw the line. Haldane's paper suggests that "economies of scale appear to operate among banks with assets less, perhaps much less, than $100 billion," above which "there is evidence … of *dis*economies of scale."[12] And if you subscribe to the emerging wisdom that "too big to fail" is synonymous with "too complex to manage," you might agree with me that another term should be added to the banking lexicon—*diseconomies of dysfunctionality*.

The point is there are limits to size and to scope beyond which global authorities should muster the courage to draw a very bright, red line. I align myself closer to former Fed Chairman Paul Volcker in this argument and would say that if we have to do this unilaterally, we should. I know that will hardly endear me to an audience in New York, but that's how I see it. Winston Churchill said that "in finance, everything that is agreeable is unsound and everything that is sound is disagreeable." I think the disagreeable but sound thing to do regarding institutions that are TBTF is to dismantle them over time into institutions that can be prudently managed and regulated across borders. And this should be done before the next financial crisis, because we now know it surely cannot be done in the middle of a crisis.

While my views on TBTF may be slightly radical (if eminently sensible), my perspective on the importance of central bank independence is, I believe, very much mainstream. So I will conclude these musings on that more pleasant subject.

Central banks must take a long-term view of the economy and craft appropriate policy responses. We must have the leeway to raise interest rates when others want cheap credit and rein in risky financial practices when others want easy profits. A Fed committed to wringing out the economy's excesses and keeping banks on the straight and narrow is not going to win popularity contests. Some of those displeased by Fed decisions will seek to satisfy their desires by resorting to political pressure.

Independent does not mean unaccountable. We have always been subject to oversight, but since Ben Bernanke took the chair, we have ramped up our efforts to be as transparent as is prudent in the conduct of monetary policy. For example, the Fed is the only business in America that I know of that provides a public accounting of its balance sheet every week—it is called the H.4.1 release, and it is available on the Internet. We now release more fulsome economic projections and minutes of our meetings. At the twiceyearly reporting and testimony before Congress required under the Humphrey–Hawkins legislation, the chairman responds directly and distinctly to questions from members of the key oversight committees. And we have responded to those suggestions we feel further our mission. For example, in the recent Humphrey–Hawkins sessions, the chairman made clear that we are willing to go the extra mile of letting the Government Accountability Office (GAO) peek behind the curtain of the special credit and liquidity facilities we created—even unto identifying the firms that participated in them "after an appropriate delay" so as to allow those firms to conform to their own reporting obligations.

I think it safe to say we have significantly improved transparency. There are limits, however. Some advocate making the monetary policy deliberations held by my colleagues and me at the Federal Open Market Committee (FOMC) subject to GAO audits, for example. Were this to come to pass, I believe it would lead to the politicization of the FOMC process, injecting Congress at whim into monetary policy and, if so, eventually putting us on the on-ramp to a road that could lead the United States directly to the fate suffered by once-great economies that allowed monetary policy to become the handmaiden of fiscal policy.

A politicized central bank is a crippled central bank. Only a Fed insulated from short-term, political impulses can focus on crafting the right mix of policies for the economy in the long term. It needs enough space to make the tough calls—most notably, when interest rates have to be pushed upward to slow the economy. Fed independence does not just matter for monetary policy. A central bank insulated from politics and the accompanying lobbying can also be a tougher regulator, insisting on strict adherence to capital and leverage requirements as well as prudent management and lending practices.

We see in the current debacle in Greece a significant example of one of the great virtues of an independent central bank. Historically, profligate fiscal leaders in that country have turned to the monetary authority to print their way out of the corner they painted themselves into, debasing their debts through inflation and currency depreciation. That is no longer possible in Europe. The burden of correcting for fiscal malfeasance now rests squarely on the shoulders of fiscal authorities. As was reported just this week, governments across the euro zone have cobbled together a potential €30 billion in aid at below-current market rates, should Greece's debt woes compound and donor countries agree to activate the credit line. It matters not, as was intimated in yesterday's *Wall Street Journal*, whether the European Central Bank played a role in crafting that package.[13] The good news and bottom line is this: The monetary authority is off-limits as an escape hatch. And that is the way it should be—be that authority European or American.

I started out by noting that booms propelled by greed, and busts born of fear, are as old as time itself. This quirk of human nature will always ignite the euphoria that fuels the ups and exacerbates the downs. Nonetheless, we need a monetary policy that leans against that propensity. We need regulatory and supervisory powers that lead to policy that ensures a sound financial system given less to the "betrayal" of capital into "hopelessly unproductive works" and more toward efficiently channeling monetary policy actions to the real economy. We need to keep monetary and regulatory authority united so we can work together in the interest of the entire financial system—not just in the interests of the largest institutions and those too big to fail where there is a greater tendency for the preconditions for Minsky/Wodehouse Moments to metastasize. And we need to ensure that this authority is free from and uncompromised by political pressures, leaving fiscal authorities to fulfill their obligations to the American people—just as we at the Fed must fulfill ours.

Notes

The views expressed by the author do not necessarily reflect official positions of the Federal Reserve System.

1. *Memoirs of Extraordinary Popular Delusions*, by Charles Mackay, London: Richard Bentley, 1841.
2. "A Time of Unexampled Prosperity," by Washington Irving, in *The Crayon Papers*, 1890.
3. *A Short History of Financial Euphoria*, by John Kenneth Galbraith, New York: Penguin Group, 1990, p. 106.
4. "Lessons from the Collapse of Bear Sterns," by John Cassidy, *Financial Times*, March 14, 2010.
5. "On Credit Cycles and the Origin of Commercial Panics," by John Mills [sic], in *Transactions of the Manchester Statistical Society, Session 1867–68*, Manchester, England: J. Roberts, Printer, 1868, p. 18.v.
6. Lewis's latest works include: *The Big Short: Inside the Doomsday Machine* and *Panic: The Story of Modern Financial Insanity* (2010), a particularly good read.
7. "Jeeves and the Unbidden Guest," by P. G. Wodehouse, *Saturday Evening Post*, 1916.
8. For a more detailed treatment of these themes, please refer to the following: the essay by President Richard W. Fisher in the Federal Reserve Bank of Dallas's 2009 annual report, and "Regulatory and Monetary Policies Meet 'Too Big to Fail,'" by Harvey Rosenblum, Jessica Renier, and Richard Alm, Federal Reserve Bank of Dallas *Economic Letter* (both forthcoming).
9. Most recently available figures, per Call Reports (state member banks) and financial statements (bank holding companies).
10. "The $100 Billion Question," speech by Andrew G. Haldane, executive director, financial stability, Bank of England, March 30, 2010.
11. "The Value of the 'Too Big to Fail' Bank Subsidy," by Dean Baker and Travis McArthur, Center for Economic and Policy Research, September 2009.
12. See note 10. Per Haldane (p. 19): "In 2008, 145 banks globally had assets above $100 billion, most of them universal banks combining multiple business activities."
13. "Trichet's Voice Is Drowned Out in Rescue Effort," by Brian Blackstone, *Wall Street Journal*, April 13, 2010, p. A9.

Q&A

RF: Thank you. I would be very happy to avoid answering any questions you have *[laughter]*.

Q: Thank you very much for being with us today. I want to commend your comments about the dangers of leverage. However, we have an Internal Revenue Code in this country that essentially incents leverage by providing that, for both businesses and individuals with regard to home mortgages, their interest expense is tax deductible. At the same time, we don't have any incentives for individuals to save money. And, of course, corporations are subject to double taxation with regard to dividends they pay. With those thoughts in mind, is the United States at a point in time when it needs to alter the Internal Revenue Code to basically at least level the playing field from the standpoint of the tax treatment of debt capital relative to equity capital so that there's less of a tax code incentive to leverage?

RF: Forgive me, but I sense a statement hidden within that question *[laughter]*. And I'm very strict about sticking to what I know and what I'm paid to do. That's a fiscal issue. We elect people to make those decisions called the United States Congress, and I don't think it's appropriate for a monetary authority official to comment, if you'll forgive me.

Q: I have a mike here. I can ask you a question … can I?

RF: Remember, we have a long-term vision at the Fed. I couldn't see you. You're sitting too close *[laughter]*.

Q: I was interested that you focused on the long-term nature of your obligations, and so forth. One of the things that's bothered me as an observer is that the people that are managing the banks become eligible for bonuses annually, so they can bet the store and create a huge bonus that is paid out. We all know from the last couple of years that some of these people got bonuses that were on fictitious profits. They were on trades that they'd accrued profits on, but when the trade was actually closed out, there was no profit.… It seems to me that if you went to a quinquennial bonus structure, that you take a lot of the management risk out of the equation. I don't know how you do it, but if it were a quinquennial bonus award rather than an annual thing, as these guys accumulate bonuses, they're automatically going to become more conservative in their bets in the marketplace, don't you think?

RF: I have mixed feelings about this subject because I went to Brown Brothers in 1975, and my first bonus consisted of being called into the partners' room and being given an envelope with a $50 bill in it. I'll never forget that. I went home and my wife broke down in tears—big guy on Wall Street getting $50 for a bonus*[laughter]*. But, by the way, that's why that bank is so profitable.

I'll just make a general statement here. This is a personal opinion. I'm not speaking on behalf of my colleagues at the Fed or even as a Federal Reserve official in this case. It just strikes me that we have moved more to be income statement driven than balance sheet protective. Banks provide a social service. There is a utility role provided by banks. We provide through taxpayer subsidies protections to the depositors and to the structures of banks. And I think the trick here is to somehow get the right balance between immediate income statement–driven behavior and preserving balance sheet integrity over the longer term.… I can't say the word *quinquennial*—or maybe it should be sesquiquintennial, every 150 years—but I do think that this is a change in culture that's certainly taken place since I arrived on Wall Street in 1975. And I'm not sure it's a healthy one.

I told you I would do my best to avoid answering all the questions, in the interest of transparency *[laughter]*.

Q: You made a compelling argument for why a number of these firms, like Lehman, were outside your purview. When everything started to break down, this wasn't within your regulatory purview. But … the wholesale financial institutions were the first to melt down because the security prices adapt in real time. The coming wave in commercial real estate, the sort of ongoing but far from over construction development loans, the home equity loans that are just on vanilla bank balance sheets—these are held by the most vanilla of regulated banking institutions across the country. So what have the Fed and the other parts of the regulatory apparatus learned from all of this when the Minsky Moment happened totally within the vanilla parts of the system as well, it's just taking longer for that to play out? That makes us as a public feel that if you had all of this power the first time, you would have utilized it.

RF: That's a very good question, and I'm sure that President Pianalto, Sandy Pianalto, may have been addressing some of these issues this morning. We think about them constantly, and my answer is the following:

First of all, we are not blameless as an entity, the Federal Reserve. I think to be successful in this business you have to have what I call peripheral vision. You have to have it. It helps to have as much formal ability to gain insight as possible, which is why I am not in favor of taking away, obviously, what we currently regulate but then at the same time giving us greater systemic responsibilities, or the ability to have and develop that peripheral vision.

We have taken significant initiatives internally under the leadership of now outgoing Vice Chairman Don Kohn and under the leadership of Chairman Bernanke in terms of the way we look at financial institutions—not in their own individual silos, but with horizontal studies. The chairman has talked somewhat about this in his testimony before Congress. I would advise you to take a look at that.

But the point is that we have learned from our mistakes. I think that's what people do. First of all, people do make mistakes, and you learn from them. And I think it is very important not to add to the complexity of that process. I believe we have comported ourselves rather well. Let me give you an example—indirect, but I think it illustrates the way we operate:

I don't know of any government entity in my lifetime that has said, "We're going to do *X* on a temporary basis, and we're going to close it down." We ramped up to over—Sandy, correct me if I'm wrong—a trillion and a half in emergency liquidity facilities. The commercial paper market stopped. We stepped in and had to make that market. The asset-backed security market melted down. We had to step in and make that market. You remember the first money market mutual fund established in the United States broke the buck. We had to provide underpinnings for that. We've unwound every single one of those programs. Didn't cost the taxpayer a penny. We did what we said we were going to do. We're done. It's over.

So I think we deserve a little bit of respect in terms of the way we acted. I hope you will give us the benefit of the doubt for having learned from what we didn't do well before, and having taken the kind of initiatives we now have under the chairman, with the outgoing vice chairman, with Dan Turillo now having more direct responsibility over supervision and regulation, and the enormous input from the very active 12 bank presidents who, by the way, are the ones that lend money. We run the discount windows; we operate the emergency facilities through New York and other facilities.

So, having been put in that position, we've asked ourselves, "What can we do better?" And these horizontal reviews and this way of not just thinking [vertically] is a very good step forward. Time will tell if it's satisfactory to analysts such as yourself and observers, whether or not we've done a good job. But I think layering on and changing the actors would probably add particularly to the confusion of the vast majority of banks that are not here on Wall Street. They're on Main Street, and they're already suffering under significant duress. What we want to make sure is that we're good regulators, that we don't just keep changing the deck chairs but rather implement what we are assigned to do and are duty bound to do, and do it in a better fashion.

Short answer: we've taken significant initiatives internally to change our ways.

Q: Where did the Fed get the $1.5 trillion that it lent to the markets? I know the answer is that you just changed the numbers in balance sheets—that's how the Fed works. I'm not saying that's a problem, but the question is, why can't the U.S. Treasury do the same? What technically prevents the Fed, say, from crediting the U.S. Treasury account as much as is necessary to spend enough to have zero unemployment, for example? There's not going to be inflation, because inflation is due to too much spending, and we won't have too much spending unless we have full employment. So what prevents the Fed from doing that? I'm talking about institutional arrangements….

RF: I'm not sure I understand your question, but, first of all, we are the central bank. We're the lender of last resort. Our duty is to maintain the integrity of the financial system. We have an assigned duty. We perform that duty. And we perform much of it in cooperation with the Treasury.

Q: You're also the assurer of currency. Sorry: the *monopoly* assurer of U.S. dollars.

RF: That's correct. And let me add further, it's a faith-based currency, right?

Q: No, it's based on the fact that Americans have to pay taxes in U.S. dollars. That's what creates demand for U.S. dollars.

RF: Let's not confuse the fiscal side with the monetary side. Both of us have the responsibility to provide the underpinnings for a bankable, reliable, productive, and progressive society. We have a division of duties. We perform a central banker's function. I would urge you to go back and read Walter Bagehot, which I'm sure you've done, and you know the history of central banking perhaps better than I do. And maybe offline we could have a conversation of how we've divided things up with the Treasury. But remember: we're the central bank. The Treasury's part of a fiscal authority. The fiscal authority ultimately is the Congress of the United States, and we have a division of duties.

And you're right about the tax and spending side of it; but again, that's the fiscal responsibility of those who are elected to perform that duty. But I'd be happy to explain the specific details to you at some point if you'd like—actually, I'd be happy to have Jim Bullard do it this afternoon *[laughter]*.

Q: You mentioned that euphoria is an age-old condition. How do you keep the regulators from becoming euphoric?

RF: Or, how do you keep it from infecting the regulators? The answer is, you have as civil-minded regulator[s] as you possibly can, who have in-depth experience in the field, who've been around a long time, who've seen these cycles before. I'll give you an example.

My colleagues will kick me later, but one of my great pleasures is to have at the Federal Reserve Bank of Dallas a man named Bob Hankins, who's head of supervision and regulation. I don't want to give away Bob's age, but he's been at it a long time, and he played a significant role in closing down over 400 banks during the last crisis. It's very hard to get him euphoric about anything, and he's been a very wise adviser, not only to me but also to our system as we've gone through this. I think there's no substitute for experience. There's also no substitute for understanding what a central bank does, and how it's responded in previous instances. And to get back to the earlier question, if you really want to understand what we did, if you wanted to anticipate what we did, the playbook was written in the early 1800s by the Bank of England doing what a central banker as a lender of last resort does, even to the point, as Walter Bagehot said, [of] “lending to this man and that man”—opening the floodgates. You want to put yourself in a position where you don’t have to do that, and I think the best way to do it is to learn from history and the mistakes that have been made before.

So, again, this gets back to *Where does experience reside?* We’re by no means perfect. We’re humans. But we’ve been operating a system for almost a hundred years now. Mistakes have been made. There’s an enormous amount of serious, rigorous, academic analysis, as well as real-life interaction out there on Main Street, where … we lend, and where we are active in our communities. And you just have to have that kind of depth of experience, I think, to avoid being infected. But I’m a big believer that you need to realize that history … nothing is new. History has happened, and we can learn a great amount by being good students of history. So it’s hard, because we don’t insulate ourselves. Obviously, we’re out there in the field, the 12 [reserve] bankers in particular, interacting every day. But I think you just have to take a little bit of distant perspective and—very, very important—we have to be free from political pressure. That tends more toward the pandering side; ours should be on the pondering side.

Q: I’d like to know what the difference is between Greece and the United States….

RF: Well, first of all, you are right to be concerned about the spending side and the imbalances that exist in terms of the fiscal equation in the United States. As you know, the Treasury will go to market for perhaps as much $1.4 trillion this year. They did it last year as well. We have a steepening yield curve and nominal terms. I think part of that steepening yield curve has to do with a promise of a more healthy economy. I believe we’re on the road to recovery. I think it’s a very sort of limpid recovery, but it’s occurring nonetheless. But I also believe that the price of debt is being affected by this concern about our fiscal imbalances. Further, I believe that it’s not just our operating deficit—our income statement, as it were—but our unfunded liabilities. We at the Dallas Fed, and I in particular, are especially outspoken about the commitments that have been made to the American people that cannot be met. By the way, the smallest one is Social Security. Easily solved: only about $14 trillion in unfunded liability there. The big one is Medicare, which we at the Federal Reserve Bank of Dallas, using an infinite time horizon, calculate as being almost $90 trillion. But other people, like Pete Peterson, calculate it [to be] about $35 trillion unfunded.

Something has to be done. The worst thing that could be done would be for the Federal Reserve to monetize those debts—to float them, like I mentioned earlier, was a previous propensity in countries that got into trouble. So that just means that our fiscal authorities have to dig deep and figure out a way to solve these problems. Until they do, the price at which they borrow will be affected. But there’s no question, it’s a lot tougher now to be a senator or a congressperson than it is to be a member of the Federal Open Market Committee. And I pray that they get it right.

I have a new grandchild, two weeks old, on the back of an 18-month-old granddaughter, and I keep thinking about their future constantly, and the very deep hole that my selfish generation has dug this country into by consuming too much and saving too little. Well, we have a political class—and, by the way, we’re very careful at the Fed to be neither Republican or Democrat, so let me just give you one quick little story, because it’s a fun story, but I think it’s also true.

Probably the most honored and decorated Republican public servant is George Shultz. I don't know anybody—in fact, I don't know anybody practically in history—that's served in that many cabinet posts as Mr. Shultz did, from director of the OMB to secretary of the Treasury, secretary of state, secretary of labor…. When he was head of OMB, he got very upset—Nixon was president, and there was maybe a billion-dollar deficit or something unimaginably small [like that]. And he called into the office the encyclopedia at the time, who'd known the entire history, [Sam Cohen]. So he called Sam in and said, "Look, it's the middle of the night, just you and me here in the office. We work for a Republican president, but just tell me, Mr. Cohen, is there really any difference between Republicans and Democrats when it comes to spending money?" And this being a very diligent man, Sam said, "You know, Mr. Shultz, I need to think about that. I'll do my research, and I'll be back."

The next morning when Schultz arrived, bright and early, there was Sam. And he said, "I have an answer for you. There is no difference. The only difference is, Democrats enjoy it more" *[laughter].*

Well, I'm not even sure that's the truth anymore. I think we have to be equal opportunity here in assigning both sides of the aisle, and, whatever else, the fiscal authorities [need to] get their act in order. The chairman spoke about that this morning. He spoke about it in Dallas last week. We all speak about it. But the worst possible outcome would be for us at the Federal Reserve to accommodate that fiscal lack of discipline, because then we really would be in trouble, and you would see rates back up very dramatically, in my view.

Q: You say in the history of manias, panics, and crashes there's nothing new under the sun, and that we have that history to look back to for experience. But there is something new under the sun, because in this particular cycle we've had serial bubbles. And what history has told us is that when we have bubbles like the stock market in the 1990s, they crash, they burn people out, and they don't come back. Not only did we have serial bubbles, when they came back, we had myriad bubbles—we had house price bubbles, we had commodity bubbles, we had credit bubbles. So somehow or other there has been something different. And at the peak of all of this, why is it that we could look back at this history, and learn from the experience, and not even identify one bubble, much less this unique series of myriad bubbles?

RF: I'm not sure about your assertion that this hasn't happened before, because I look at the South Sea Island bubble, the Panic of 1825, the tulip mania in 1636, and so on. And if you actually study the history, there were rolling cases. We have had greater economic prosperity for longer periods and in length of business cycle than we used to have, but I still think the phenomenon is likely to occur. So I'm not sure what the answer to your question is, except that we have to be observant, develop as much peripheral vision as we possibly can, and be mindful of what's actually going on in the system. I don't think we can ever completely prevent this human history from repeating itself, but we can mitigate it. And we have to be very careful, at the minimum, not to exacerbate it by bad policy.

Let me take one more question. I'm afraid I have to go.

Q: Could you help some of us who are a little worried about the PR of the Federal Reserve over the last—let's take a longer-term view—30 years? Today, the top 13,400 American households have more yearly income than the bottom 96 million Americans (David Cay Johnston). We have the Gini coefficient of the disparity of wealth growing to be like that of Brazil, Mexico, and Russia. And we are faced with a chairman of the Federal Reserve who kept repeating that the greatest danger with the disparity of wealth going this way was upward wage pressures. Can you reassure me that that's not going to be a position of the entire Federal Reserve—that they're not going to depress wages as America becomes a more and more divided economy? That's the PR problem right now.

RF: I do not believe Ben Bernanke ever said that.

Q: I'm sorry, Alan Greenspan said it repeatedly—upward wage pressures, upward wage pressures. And this was when wages were stagnant.

RF: One second—right now, that's not our problem, obviously. We have way too much slack in the system. We have dramatic incidence of high unemployment, particularly when you take into account those people who have withdrawn from even applying for jobs—in fact, the chairman referred to that this morning. We all refer to it constantly.

We have a dual mandate at the Fed. Our job is to provide the monetary positions for maximum sustainable employment with price stability. It's very unusual. I believe that you cannot have sustainable employment growth, jobs growth, without having containment of inflation or deflation and having price stability; so I think the two are interrelated.

I think what is going on is the following—in fact, I have a firm conviction on this front. Running up into the middle of 2008, we were seeing significant inflationary pressures. What was coming in the back door of a company that produces goods and services was not able to pass through the front door. Therefore, to preserve their margins, businesses were cutting back on costs and really working technology to the max. The single largest cost in these businesses is personnel, people—what they call "head count" when they depersonalize it. So you were driving margins by reducing costs significantly, and head count was one of the big cost savers.

Then the stick went into the spokes with the financial crisis. The economy went into reverse gear, and you had an exacerbation of that very phenomenon. You couldn't grow your top line only through price increases; you couldn't grow your top line because demand imploded. So if you were a businesswoman or businessman, you worked to preserve your margin so you could pay off your bank debt and do whatever else you wanted to do, and just survive by further clamping down on costs and driving your use of technology to maximum efficiency.

That's where we are now. We're coming back out of that, we hope, with a mild recovery, but at least it's in the positive direction. The objective of recovery, obviously, is to help our economy prosper and our society prosper. You can't do that unless you have more employment—you bring people back onto the payrolls.

So I don't know the specific quote that you're pulling down from former Chairman Greenspan, but I assure you, he's not a heartless individual. I would also assure you that he was probably just talking about the dynamics of inflation and how they occur. But we're far from that presently. In fact I would love, being a hawk, having that problem on our plate again. But that's not where we are. Right now, where we are is in an economy that, in my view, still has enormous excess capacity, particularly among its workforce. And even though I have a reputation of being one of the more hawkish members of the FOMC, I can see the entrails, the data that we do at Dallas … and what President Pianalto's bank does on CPI inflation—

some of the lowest inflationary pressure we've seen in 32 years. So this excess capacity is constraining these immediate inflationary pressures.

Having said that, you mentioned … our balance sheet. We have an enormously large balance sheet. We have a lot that could be released into the economy, with a trillion dollars in reserves sitting in the balance sheets of the Federal Reserve banks from our … private banking community. We have to mindful as we release that into the system, [so that] as it goes back into the system and the velocity of money picks back up, we don't create the conditions for inflation longer term. That's an ongoing discussion that we have.

I just wanted to correct what I think is a misimpression: that our duty is not to suppress the success of the worker. Our duty, in fact, is to create the optimal conditions so that they can prosper. And on that happy, felicitous note, thank you for having me here.

EUGENE A. LUDWIG

Promontory Financial Group, LLC

Are We Addressing the Root Causes of the Problem?

This is a serious time and a serious issue that you posed for me, and so we really have to focus on it with some care. The issue I've been asked to talk about today is, "Are we addressing the root causes of the problem?" This is an enormously important topic and really a very thoughtful way to put the question.

Right now, between proposed congressional action, actions being taken daily by the regulatory agencies, and international actions by the Financial Stability Board, IOSCO [International Organization of Securities Commissions], the Basel Committee, and the G20, there's certainly a great deal of effort going into addressing problems. The question is, are they addressing the root problems? By and large, all of these things are well meaning, though there certainly is a tendency in some quarters, as noted in the *Times* on Sunday, to pass the buck. But they're well meaning and they're thoughtful. However, what has begun to worry me quite a bit is that we're . . . rolling down the road at breakneck speed to lard on more and more what are thought to be protections, which will surely depress financial, and as a result, economic activity. However, it's not clear . . . that these protections will actually work, nor that they themselves will not produce toxins that actually undercut safety and soundness.

The fact of the matter is that there is very little scholarship around what works and what does not work in financial services regulation and supervision. And academic opinion still runs from [those] who would let the market discipline companies, . . . not regulators—a view that held sway in the past decade—and those who would regulate financial services companies much like public utilities, at least the large ones. Our current crop of regulators and other government officials may not intend it, but this latter point of view appears to be gaining some ground, at least in practice. In one sense, if overregulation, if turning financial services companies into quasi-public utilities met the country's financial needs and made for a safe financial system, we should not care if this is the direction the system goes. So if in fact we do decide that for the largest institutions the country is safer, and it serves our needs to have public utilities, maybe that's the way we should go.

However, there's certainly evidence to suggest that financial firms as quasi-public utilities makes them at least no safer than would otherwise be the case. Fannie and Freddie are cases in point. Starting in the early part of the last decade, they became more and more regulated. By mid-decade, . . . the regulator of the GSEs required a very great deal of additional regulation and supervision. One can argue that this additional regulation and supervision, given the time and attention that the enterprises and, particularly, their most senior management put into the actual nostrums, actually misdirected both management and the regulator from having enough time and focus to deal with the major problems that were soon to befall the companies. I'm really emphasizing that your question, which is what are the root causes, and therefore in a sense what are the best ways to solve the problem, is a dramatically, an enormously important question.

Hints that . . . the problem that I just mentioned with respect to the GSEs may go beyond the GSEs can perhaps be found in the deterioration of the CAMEL and BOPEC ratings that has taken place since the crisis started. Before the crisis, many institutions that were regulated and supervised, perhaps less vigorously than would have been ideal but still significantly, were in almost all cases given high marks for their compliance with these prescriptions. And yet sometimes within months the ratings dropped like stones and the supervisory focus changed. Could it be that the regulatory nostrums of old did not work?

So something has not been working in our regulatory mechanism. The one thing I can say is that what is working is that many fine men and women [are] dedicated [to] the task. It is not the people who are at the root cause of the current debacle, nor is it that we don't have enough people. Anybody's who's worked in a regulatory agency, whether it's the SEC [Securities and Exchange Commission], the CFTC [Commodity Futures Trading Commission], the Federal Reserve, the OCC [Office of the Comptroller of the Currency], the OTS [Office of Thrift Supervision], or the FDIC, knows that these agencies are made up of many tremendously fine, incredibly dedicated men and women. America, by world standards, has a huge number of talented people working at these agencies. So one answer, one root cause, is not the quality of our people….

One answer could be that we need lots more of the same [regulation]. That is a possible answer, and it's largely what's happening now: there's lots more regulation.

The one thing that is *not* happening now, as has not been happening in the past, is that we're not testing our approaches. Our proposed solutions are guesstimates, not science. Accordingly, one of the key things that I have been advocating for is what I call a professionalization of our regulatory mechanism.

You can get a degree today in almost any endeavor—I think skateboarding and basket weaving are possible if one looks at the curricula somewhere—but you can't get a B.A. [or] an M.A., let alone a Ph.D., in financial services regulation and supervision anywhere in the United States, if not anywhere in the world. Nowhere do we at the top universities have curricula today that are much more than hit-or-miss in terms of subjects that are important to our area. In other words, there are a few courses here and there at the business schools and some banking schools that are worthwhile and serious, but they're still few and far between…. Our regulatory agencies try to [apply a] Band-Aid with training programs and apprentice systems, but they fall short of the organized course of study that we need in order to move regulation and supervision into the 21st century, I believe. It's going to be a century that will continue to see the actual practice of finance with structured products—whether or not there's a Volcker Rule, there will be structured products, and huge companies, and technology, and globalization—and it's going to explode in complexity. So the question before the house is, … should we continue to have the apprentice system be the fundamental teaching tool … for regulation and supervision? Of course, I differentiate [between] that [and] pure economics. Economics has an advanced curriculum and an advanced set of scientific and quasi-scientific methods, but not so in regulation and supervision.

At the same time, as I mentioned earlier, we're pressing hard to do the same old [thing], only bigger—[more] capital, more independence of the risk function, more compliance, more enforcement. These may indeed be part of the solution, but we're eschewing the scientific method in making these decisions when we should be, in my view, embracing it.

So my own nostrum is a much more rigorous study of regulation and supervision, and teaching of regulation and supervision, so we're better able to look before we leap. Having said that, I can't help suggesting a few more root causes of the crisis. By implication, one root cause I'm suggesting in the financial services area is that, although the financial service businesses have increased in complexity and sophistication and science, the regulation and supervision has not.

But there are a few more … that I'll suggest, some of them a bit mundane…. First, I'd point to the macro factors…. Now, when I go through the macro factors I want to make one point…. I do not believe that any kind of systemic event—and what we've lived through has been a systemic event—is caused by one or two bad actors. We love to do that. The S&L crisis was Keating; in the Great Depression, they pointed to one of the banks that had securities. But that is not, in my view, what causes a systemic event. . . . Systemic events are by and large caused by government action or inaction. Something that big has to really have a big cause. Here, there are a number of macro factors, and excess consumerism is certainly one, pushed by excess liquidity. [Keeping] interest rates [low] for too long has to be part of the story. And yet, still, we're hoping consumer spending pulls us out of the slump. Whispered in Washington is a hope that the savings rate actually declines. Now, if we're looking at a long-term benefit for the economy, that's certainly not what one would like to see. So we've still bought into this consumer concept, which I think is one of the root causes.

Similarly, current account and fiscal balances are not yet being addressed, and one has to say, I think fairly—and it's part of the whole consumer mantra post–World War II—that the structural fiscal deficits we saw in the last decade and the trade deficit have got to be part of the root cause of our current debacle. A deteriorating business environment where our infrastructure—be it education, rail, highways, or trains—is lagging other developed countries. In other words, we've become a less and less efficient business environment.

You could say, "Hey, you were supposed to come up here and talk about regulation, and supervision, and finance—not business." You know, I think the one thing that the public has really misperceived—and everybody in this room understands—is that at the end of the day finance is a facilitator of economic activity, but it's not the "beef." It may be the bun and the relish, but it's not the beef. So finance, to some degree follows the business environment. To my way of thinking, one of the problems here, oddly, was the success of finance in the first decade of the 21st century in facilitating what was in fact an unsustainable model, a model that emphasized consumerism, trade deficits, fiscal deficits. And so, oddly enough, American finance doing an exceptionally good job got itself into an exceptionally bad corner.

In addition to the macro front, our dependence on foreign energy has hurt for certain. And finally, our lack of housing policy, at least stated. Even enhanced rules for consumer sales hurt, and still we don't have those kinds of protections….

I'd [also] point to our regulatory structure … [as] being a sort of semi–root cause of the crisis. There has been, and there remains, an alphabet soup of regulators. Indeed, I just came back from abroad, and I cannot tell you the snickering, the finger-pointing, the guffaws of foreign regulators and financial enterprises at how we continue to maintain what is a bizarre system of regulation and supervision. Interestingly enough, while abroad they do debate whether it should be in the central bank or … somewhere else, nobody advocates for the kind of multiplicity of regulatory enterprises that we have….

One of the most interesting things in regulatory supervision today is, the first line [of defense] is supposed to be the business line, … and the third line is supposed to be the internal audit. The second is this enterprise-wide risk management. If you look at what's actually been going in the past decade—what's going on now—there's an immense focus on the second line of defense, [and] very little on the first.

Finally, I'd point to individual enterprises and governance of them as something that's worth focusing on. Again, I wouldn't quite call it a root cause. To my mind, those who survived the financial storm were better led than those that were not; and yet we have not really analyzed why. So in terms of analyzing what's the root cause in terms of individual financial institutions, one thing I think you'd have to say is that the leadership of the ones that survived is better, and we haven't quite figured out why. And we haven't figured out what in the culture has made a difference. What about the CEO choices? Why did some institutions tend to choose better than others? What about board membership and board functioning? There's a fumbling toward this, but there's really very little science around it….

I have my suspicions. First, having survived a storm fairly recently will correlate. In other words, one of the things that I think we've not studied … is, in fact, that it's just human nature: those enterprises and those industries that actually had a storm 10 years ago arguably—and you can see this in the Canadian environment, where they actually went through some difficult times—had a great teacher. Second, having a culture that encourages straight talk internally and quick action will correlate. Partnership structures versus idiosyncratic kingships on the whole, I think, did better; but that's something that ought to be studied more than just asserted.

Let me end by saying that only in one sense are we addressing a root cause of the crisis—the general topic of lack of regulation in as effective a fashion as we would like. On the macroprudential side, it remains to be seen whether we will address the root causes.

However, as I've emphasized in this talk, even our addressing the regulatory side to date as been markedly suboptimal—weaker than it should be, filled with politics and ideas but [with] less science than we need. However, … what we're doing, [imposing] more regulation, will cool things down for a time—but at a tremendous cost.

First, it will put a greater drag on financial institutions and on the economy than is necessary. Second, it is likely to be less a bulwark against the next crisis than would be desirable. So at the end of the day, your focus at the Levy Institute…, which has been a leader at doing just what is needed, is studying issues and raising topics like "What Is the Real Root Cause?" which has tremendous value, one of many values that the Levy Institute brings to the study in this area.

With that said, I will finish my formal remarks. I'm happy to take questions….

Q&A

Q: I'm a little puzzled by your middle and your ending. You were saying earlier that financial markets had been in some sense too efficient at allowing this overconsumption to occur, and so on and so forth; and yet you're saying that more regulation is reducing the efficiency of the financial markets, and therefore has a huge cost. I honestly, truly don't see how you reconcile those two views.

EL: I think, one, we want efficient financial markets, for sure—that's what we ideally would like. But we want efficient financial markets that are regulated in a sensible way so they themselves don't go to excess, so they themselves don't help to create a problem—that they know when to stop. That's what we haven't had. And the antidote to what we *have* had, which is not an effective enough governor of the markets, is to just simply put more of the same, pile it one on top of the other. That's a little bit overstated, of course;

but the one thing that is absolutely certain is, if you go abroad, it's one of the fascinating things. Or, in the United States, somebody may come up and say, "By God, you're wrong!" But if you look at the capital numbers, whether it's leverage capital, or tier one, TCE [Tangible Common Equity], and you say, what should it be? Should it be 4 percent, 6 percent, 8 percent, 10 percent, 12 percent? People will have [their own] views, but there's no science. Nobody that I know of has a really impressive study that says it's 6.27. Now, that's a little silly, but 6 is vastly better than 7, vastly better than 4. Here, we're about to charge the financial system with an enormous tax that will put a drag on credit, a drag on economic development, and we have no science behind those numbers…. We have no science behind the more complex issues—rules that have, by their nature, a little bit more qualitative aspects to them—and this is desperately needed in my view. Again, they're good men and women who attempt to do what the right thing is; but after all this time, we're living with an apprenticeship system of education. Nowhere else, almost, do we have that. We've given that up with doctors and leeches—that's gone. Economics is decades, maybe centuries, past that; but not in regulation and supervision.

Your point's a very good one. It's a very good question. So in one sense we do want an efficient system: we want an efficient system that knows when to stop….

Q: I'd be very curious to know, having been part of the financial regulatory system, if you see a way out of the alphabet soup.

EL: … Our way may be a little different from other countries in the sense that we have large and small banks; and it may be that, ultimately, the ideal is not one prudential regulator but it's one that focuses on smallness, like the FDIC, and one that focuses on larger institutions. That may be it. Or it may indeed be something that looks more like OSFI [Office of the Superintendent of Financial Institutions] in Canada and APRA [Australian Prudential Regulation Authority] in Australia. But it is telling that the two countries—at least, the two Anglo-Saxon countries—that did materially better than the rest of the world…, Canada and Australia, have almost identical mechanisms on the regulatory supervision side. They have one regulatory body—OSFI in Canada, APRA in Australia—that is a prudential regulator, and that's its set of professional responsibilities. And if one asks John Laker, who runs the supervisory mechanism in Australia, "Do you want to have compliance…? Do you want to have market supervision? " he'll say, "Absolutely not. What I have is enough, and I do it comprehensively, and I do it well."

France, in a slightly different mode, with the Commission Banquaire, a sort of quasi-part of the central bank, also has very much a professionalized prudential supervisory mechanism. And France, too, has done a little bit better than other countries. That's a … telling sign. As I mentioned, while there's a debate internationally—Should [the regulatory authority] be in the central bank? Should it be independent?—and while I think you can also make the case in this country because of the tremendous number of smaller institutions we have that it ought to be a little bit differentiated here, nobody outside the United States argues in favor of the plethora of regulatory bodies that we have.

Q: I'm not sure I agree with your proposal to have undergraduate majors in regulation. It seems to me we have far too many majors these days. But I think you're onto something. … Years ago, General Electric had a program called the Financial Planners Trainee Program, and it would take youngsters who graduated from college, and no matter what their major—it could be English, French—they would spend two years in accounting, getting the curriculum that they needed; but they'd also spend real time in GE businesses. So it's far more than an apprenticeship. This would be the academic training, the legal training, and all the rest. It would have to be sponsored. Maybe for once the regulatory agencies could get together and have a regulatory postgraduate college, if you wanted to call it that; but a program where you would actually get the academics … and, at the same time, intersperse that with practical experience working in various aspects of regulation.

EL: I could buy that—that's a very thoughtful approach. Getting together and deciding a real curriculum in this area would certainly be an advance, and this may be a graduate degree program, not an undergraduate degree program, in our system. In the English system, where they tend toward undergraduate programs that are quite narrow, it might be a little bit different; but in this system, a graduate degree program might make a lot more sense. But [as far as] getting together and deciding what a course of study is that really advances the whole area, I think you and I are on the same page.

Q: … You said it would be worthwhile to identify the variables that explain better performance in the crisis, as opposed to worse. Could you give your opinion? Chase seems to have made out better than Citi. Maybe you have some insights on that. Was it Jamie Diamond at Chase that was the difference?

And relatedly, we have the issue of economies of scale in banking, which eventually reverse into diseconomies of scale: Our previous speaker gave a high number for that. Could you give your own thinking on where the economies of scale end, at what level of a bank's business?

EL: … In terms of the individual institutional causes, fundamentally, it's the same point I'm making about the area in general: that there's much less science and a lot more finger-pointing. I don't have all the answers; maybe I don't have many of the answers. But I can say this: there hasn't been enough study. And in the areas that we think [things] have gone wrong,… it's very dubious that what we think went wrong, went wrong.

I'll give you an example: capital. We are racing to have more capital, capital, capital. On the other hand, if you look in the banking industry—for example, look at Citi and WaMu. It was not when they basically had to be forced to merge that they were critically undercapitalized. They were *well* capitalized. So if you look at it, it's hard to make the case that capital was the correlator, at least not every time. So if that wasn't the correlator, why rush to have more capital, capital, capital? My argument is, we can take these things apart, and that's worth study.

Your second question…, on economies of scale: … there actually was a study by the OCC and the Fed a decade ago—maybe it was even 15 years ago—that found that a $100 billion enterprise was the tipping point between … economies of scale and [the loss of] economies of scale. Of course, as you know, they vary from business to business; so there are more economies of scale in retail—for example, the card business—than in commercial lending….

Again, where's the study today? Furthermore, where are the diseconomies of scale? We again have bought into the notion … that diversification is the be-all end-all: the more you can diversify, the better off you are. Yet I think you can make a very compelling case that at some level diversification creates a certain amount of toxins, and those toxins [evolve into] complexity and an inability to manage; so that, in fact, you get to a tipping point where, instead of getting [what] you might [call] regulatory economies, you get exactly the opposite. And that's beginning to dawn on people. But again, we haven't studied it.

A great thing for the Levy Institute to do in the coming years is to take these things apart and get some academics to do the kind of rigorous analysis that I think one needs to do.

Q: Just taking a slightly different tack, we heard the lunch speaker say that we have a very long history to learn from and that we have already succeeded in studying; and others have said we already have the regulatory power, [that] the Fed could have raised margin requirements. So let me pose a different question. . . . It's a matter of political will that the financial sector is simply too strong, quoting Simon Johnson and others; so that if there were a graduate program, should it be in political economy?

EL: … First, the regulators certainly did have enough authority. U.S.C. 1818 gives the regulators essentially unlimited authority to do anything vis-à-vis an institution that's viewed as [having] an unsafe and unsound practice, so there's certainly enough authority generally granted. But, on the rules side, I think you can't say that there are simply enough rules in and of themselves. It reminds me of the great Myres McDougal, who was a professor of law at Yale Law School on the international side—a really brilliant internationalist. Myres used to say that it wasn't the problem … that there was no international law, as was often asserted, but [that] there were too many international laws. I think the same can be said of regulation. Because we haven't studied this area rigorously, it doesn't mean people don't have lots of powers. But we haven't really crystallized what works, what doesn't work, what's most important, what's least important—how to triage them. And we're sort of, I think, in danger of gumming up the works by just simply piling one on top of the other, because supervisors can't differentiate. If you look at the books of guidance, it's just enormous, and how does a supervisor know which of the five things are most important, the 25 things that are most important? And that's in spades in terms of the individual institutions that have to regulate themselves.

There's no doubt that the political process in the United States or anywhere else is not pretty, and also that these financial rules are [so] complex that it's hard to expect our political leaders to become experts in them sufficient to write the rules. I'm actually impressed at the degree to which the House and Senate have focused on substance in trying to understand—really quite impressed—the particular rules that will be effective in financial regulation. I've never seen anything like it in my life, actually, … not even on the Financial Services Committee, where individual [representatives] genuinely want to know. I've been up there a lot on both sides of the aisle (I refuse to get paid for this; I just do it as a service) to talk through regulation with them. They really want to know.

But the problem is that we don't have enough science behind it that [those involved in] the political process, in my view, can actually differentiate. And there are all kinds of different constituencies that get involved. Sadly, there are few constituencies for good government…. But I wouldn't blame it on the banking industry, frankly. I myself would blame it on our lack of genuine science and focus on these areas in a sufficiently rigorous fashion.

Q: Would you comment on the accounting regulatory interface before the crisis and where it's going to be postcrisis? I mention that with regard to things like Repo 105, and Hudson Castle, and these sorts of things that are spilling out.

EL: In terms of regulation and accounting, the accounting area is loaded with talented people and has become an area that is highly ideologically driven, not in an untoward or venal way but certainly in a highly ideologue way. So those people who believe in mark-to-market accounting genuinely believe it, almost to a religious certainty.

And yet, here again, if one looks at it fairly, it's hard to make the case that accounting didn't help push the pendulum in this crisis. I for one believe that accounting as an area deserves a much more thoughtful approach than simply—in the financial services area, certainly—buying into mark-to-market accounting. Mark-to-market accounting is certainly one way to look at finance, and we ought to have the ability to look at it that way; but it's not the only way. The problem is that the way mark-to-market accounting has become integral to financial services regulation, the financial services regulator has very little ability to vary from it.

Let me give you an example: GAAP [Generally Accepted Accounting Principles] drives the allowance for … loan and lease losses. Going into this crisis, if you had a fat allowance for loan losses, just because you felt, by God, that's [your] best judgment, you couldn't do it. You were almost required to. If you couldn't justify it—and not justify it on an occurred loss methodology, not on an expected loss methodology—you were subject to prosecution by the SEC. So you couldn't say, "Look, I've been in . . . financial services for 50 years, and I just want to add another $100 million to that loan loss. I can't tell why, but I think the storm is coming"—you couldn't do it. And accordingly, our banks went into the financial crisis with very thin [allowance for loans and lease losses].

So it's hard to say accounting wasn't part and parcel of this, or that that methodology was right in this case. I think this is an area where you have to [allow] the regulators much more give in terms of accounting.

One of the mistakes I would say I made in office, everybody was pushing for GAAP, not RAP [Regulatory Accounting Principles], when I first came to office; that is, no longer any regulatory accounting in finance, had to go to GAAP. I was the last holdout. And ultimately, I got persuaded to basically adopt GAAP for the banking rules. I think it was a mistake. I think in the banking area you need some give, you need some regulatory accounting treatment.

Q: [When] you were still comptroller of the currency, some state, … California or Massachusetts … passed a law that prohibited some awful thing that was being done to consumers—moving the interest rate up without telling people, whatever it was—and you ruled that national banks were not to be subject to that rule. Do you now regret that you did not allow the states to experiment with some of these rules that might have stopped some of the more egregious examples of cheating that accompanied the boom in the first decade of this millennium?

EL: Great question, and the answer is, yes and no. I am absolutely a huge believer in consumer protection, but an enormous believer that we ought to have national standards. So I would say that if I went back and did it again, … I think we focused a lot of attention in the comptroller's office on good consumer standards, but I would want to focus even more attention. Having said that, I don't think the issue is how high the standards should be, as long as they're good standards. I think the higher, the better. The big issue before the country right now is whether they should be national standards or local standards; and I think we have a great danger of balkanizing the United States and depressing our economy, basically giving up to Europe, which is trying to create a market across countries. We're going to balkanize ours, so that … you're going to have 50 different states with 50 different attorneys general, and if you actually have to manage a financial company that's supposed to operate coast to coast, you give up enormous amounts of consumer efficiency and consumer well-being. So I think the right answer here is, (1) very high standards, (2) very good enforcement, and (3) a national standard. [The] consumer protection agency that they're trying to enact is, I think, not the big question. Having an effective enforcement and consumer mechanism's highest standard is a good thing, but I think having national standards [is] very, very important.

Q: In testimony last week taken in Washington by the Financial [Crisis] Inquiry Commission, it was really interesting when the OCC seemed to engage in a little finger-pointing toward the Fed over who was overseeing some of the bigger problems at CitiGroup. While that was interesting in and of itself, it was more interesting to me that if you tried to go and look at the source documents to figure out who was right or who was more in the wrong, it was impossible really to say. We know that CitiGroup's main problem, all the toxic subprime stuff, was in their institutional clients' group. But that's not a legal entity—that, in and of itself, wasn't regulated by a specific agency. It cuts across a whole bunch of different legal units and affiliates at Citi; it might have been overseen by different regulators. All of that is a long way of asking whether or not you think that we need to do a better a job of connecting the dots, of drawing the lines between regulators and [the] entities that they're regulating. And, if so, was a lack of those kinds of lines one of the root causes, or a cause, … of this crisis?

EL: Before I get to your question, I want to add one additional tidbit to our discussion of consumerism…. Interestingly enough, it was not the banking organizations that were grateful in the current debacle; it was the un- and underregulated enterprises that were the real cause of the lack of consumer well-being. So really, 50 percent of the … toxic mortgages were extended by mortgage brokers. They're un- and underregulated, and state licensed.

The other point I would make on a national rule is (1) preemption—a big deal, and I still believe in it strongly; (2) I think we ought to be directing our attention at the shadow banking system and the un- or underregulated [brokers] to the same degree as you do the banking area; and (3) I think we ought to make sure their enforcement mechanisms are strong and effective, yes, but efficient too.

Let me get on to the question about structure: I don't think it's the case of finger-pointing between the different regulatory bodies. These are fine people trying to do the right thing. I do think you put your finger on the problem with the alphabet soup of regulators and the complication that's been caused, assuming that the bank holding company structure in and of itself is a safety-and-soundness kind of rubric that we have to adopt…. Actually, I think you can make the case—I know this is unpopular—that the universal banking model is a better model. Why? Because when you're running large, complex institutions—and I once did that—there are so many issues, that you want the most effective and simplest way to manage the enterprise in the most transparent possible format, so that you, the manager, know as quickly as possible, as accurately as possible, what's going on everywhere. And if you have, as you do in many of these companies because of this bank-holding-company umbrella model, lots of different legal entities putting things in different boxes and different places, both from a regulatory perspective and from a management perspective, it becomes very, very difficult.

What we had when I arrived at Bankers Trust—I think I have the right number—[were] 949 separate affiliates. *Nine hundred and forty-nine*. You can't keep them [all] in your head.... You couldn't even remember the names, let alone try to actually manage them, let alone try to regulate them. So you have [complications] on two orders of magnitude: (1) you have a lot of different regulators trying to do it; and (2) you have a lot of different boxes both for management and the regulator to try to make sense out of. That, I think, is suboptimal to a fare-thee-well, and it's that kind of simplification and that kind of focus that, if one studied it, one could have a real win-win. One could increase efficiency, increase effectiveness, and actually provide better benefits to the economy, consumers, businesses, at lower cost than we do now, in a safe way.

Q: I have a problem with this trade-off between regulation and efficiency that I keep hearing about from you guys that are involved in regulation. Because there are two concepts of efficiency: one is efficiency in the economic sense; the other one is efficiency in a kind of corporate or market sense—are you competitive relative to the other guy? I think that what the financial lobby wants us to think [is that] the cost of regulation is inefficiency in being competitive. Our regulators and our bankers took the position at the peak of the bubble that we had a very, very efficient system at allocating resources, at competing with others, at spreading risk; when, in fact, as Joe Stiglitz tells us, we did an immensely bad job, we misallocated resources hugely, and we created risk. So it seems that what regulation wants to do is to increase Joe Stiglitz's concept of efficiency, and that might mean we're less competitive at playing casino games around the world but we will be more efficient in a social sense. So I think there's an ambiguity in this term "efficiency."

EL: There *is* an important ambiguity. You raised a very good question, and it goes to my point about having more science and less rhetoric. Because if you had a true, efficient formula, it would include exactly what you're suggesting. It's a very, very important point you're making, and I agree with it.... Tail risk can have such disastrous effects on the enterprise and on the economy that you have to figure that in, in terms of what kind of regulatory mechanism ... you have. So if you were actually doing a scientific study, let's assume you decided capital really was the key correlator. You might well decide that you were going to do 5.5 percent instead of 4.5 percent TCE because, even though theoretically the enterprise would be more efficient at 4.5 percent, from a societal perspective, and even from an enterprise perspective, taking into account the tail risk possibilities, you really wanted to bump it up. It wasn't efficient, you might say, in the short run; but it was more efficient in the long run.

So the point you're making is very well taken, but I think that, sadly, where we are is, you and I can't have a more rigorous discussion about it ... because the science behind it hasn't really been done. We've got a long way to go, and in the interim, we probably will have to default to more, not less—not that it's better, but because we don't know.

Q: Can the large financial institutions in the United States be competitive on a global basis?

EL: As I understand it, Dick Fisher's talk, which I wish I could have attended, was [about how] we really need to cut 'em down in size, sort of [like breaking up] AT&T, or something like that.

I must say, it is a very attractive siren song to basically solve too-big-to-fail by making them less big. It sort of sounds right, [but] what worries me … is that we don't know what "big" is. For example, if one's in a monoline business but the actual aggregate number is large, … is that too big? Or if you're smaller, and you have a bunch of businesses you can't control, is that too big? What do we mean by bigness?

We're also in a world, a globalizing world, where the fact of the matter is that we're going to be dealing with different enterprises that are highly competitive—China, France, whatever. I just came back from France, and they have some of the largest institutions in the world, larger than our own, and they have performed better than our own. So I think one has to ask the question we were talking about earlier: Where are the economies of scale? Where do they break down? And then, I think, we have to think hard about what too-big-to-fail is. Maybe one of the biggest issues we face, if not *the* biggest issue, [is], if you decide entities in this country are really too big, then you are into the public-utility-versus-break-'em-up issue.

I would hope that we would be able to create—and I think that Congress has made a genuinely strong down payment on what's being proposed—a resolution mechanism that means they're not too big to fail, and we could begin to [develop] the science that explores where the tipping points are….

Q: I may be mishearing this, but it seems like the burden is on the regulator to have the science. What about the industry having the science, in the sense that there was no proof, for example, of what the social utility of a CDS was? And there was real pushback, starting in the '90s, when [CFTC Chairwoman] Brooksley Bourne tried to have exchanges for derivatives, which, if anybody is defining a market, you have to have transparency. *That* was defeated within the administration.

So when you talk about the signs of regulation, you're actually shifting a burden of proof there. I'm just wondering, what is the burden of proof of industry? Because they set a whole theory of deregulation that had very little empirical evidence to show that that was going to work; and yet we adopted that theory wholesale, with the consequences that we've all suffered….

Can I just add one other element of that: anybody who's done derivatives, whether it's a majority or not, [knows] they're really for the purpose, many of them, of arbitraging regulation or tax dodging. Why do we allow that?

EL: It's such a big question, let me try to take it pieces.

We have lived historically, certainly since World War II and particularly in the last decade, in an environment where the [national] view has been … that the marketplace, the private sector, really ought to have as much elbow room as possible, and that innovation comes out of allowing it to innovate first, and to regulate second.

Your fundamental premise, which is a fair one, is, should we instead be in an environment where we lock down what the institutions can do, and they can only do what they can prove is safe to a certain degree? … I think it's an absolutely fair way to think about things, and then you have … a historical study and look at economies around the world, how they operate, what's been most effective, what's actually safe, are we better to innovate? If you remember, one of the reasons that caused the end of Glass-Steagall was in fact a great deal of scholarship and worry that with the capital markets raging in terms of their success, and banks shrinking because of their inability to compete, that if we didn't allow them to innovate, get into the capital markets, they would actually become less safe. I'm not advocating whether that's true or not, but it was in fact a cause of a great deal of study—George Kaufman did, and so did a lot of other folks study in this area. So that issue that you're posing is completely legitimate, in my view, and ought to be studied—and I don't have a bias.

I do totally agree, again, with the second hidden premise…, and that is that the industry would be well [served] if it itself spent the time, money, and energy to study and propose what would in fact be an optimal framework in which to operate, both from an industry perspective and from an individual institutional perspective, and operating itself or its industry in the most safe and sound manner, consistent with providing the greatest good to the society. I think that is something that industries should be more encouraged to do, and I think would add value, and there is increasing movement in that regard.

So I don't mean to put the burden on government. I think the burden, to some degree, is on the academic community, on government, on industry; but, my goodness, I do think that it's important for us, whichever group, to begin to get down to the hard work of really studying this.

As you know, right now there are more books out on the crisis. It's better than writing a romance novel. . . . But, in fact, though many of them are good, and some of them even have some basis in thoughtful study, most of them are anecdotally interesting but not so revealing. You guys who are the experts in the years to come will actually write the definitive works in this area, I hope.

Q: … You mentioned capital allocation and why it is 4.5, or 5.5, or whatever the exact number is. To find out those exact points basically [involves] going back to the risk management point: you have to identify the risk and quantify the risk, and then you come up with that point. So the method is there, the economics is there, the science is there, and there are a lot of published articles out there. The point, in my mind, is really whether the credit risk, market risk, operational liquidity risk, when … it comes to the quantification [of those risks], whether there is an exchange or market where … somebody can buy that risk—[where] you can transfer that risk. In the market risk case, we have an … over-the-counter market. But for the credit risk—for CDSs, for example—there is no exchange, and on top of it, there is no regulation….

EL: I'm not here to argue against regulation, goodness knows…. I think one of the causes of the crisis was the fact that we went through a decade of less emphasis on regulation. So I believe in regulation. But I believe that we will only really come out of this if we have more thoughtful regulation, not just more…. And I agree with you about [the need for] exchanges for derivatives. In fact, derivatives are almost a classic example. As modern tools, I'm a little more optimistic [about them] than the other gentleman mentioned. Some of the derivatives are actually risk-management methodologies, and they are good ones. The problem is, we allowed everything to go on.

I always analogize the invention of structured finance derivatives [to the] development of nuclear energy, or electricity, or fire. But instead of having fire and putting it in the fireplace—i.e., surrounding [it with] regulations—we allowed it to be built in the center of the living room, and burnt the house down. So I'm totally in favor of serious regulation, absolutely—if I've been unclear on that, I want to make it clear. But the issue is good regulation. Bigger isn't better; *better* is better.

Thank you.

RICHARD H. NEIMAN

Superintendent of Banks, State of New York; and TARP Congressional Oversight Panel

I was appointed superintendent of banks a little over three years ago, and a lot has happened since then—much of which serves as the backdrop to your conference today, under the heading "Planning a New Financial Structure." I hope to add some value to the conversation by sharing my perspective through the two hats I wear….

The New York Superintendent of Banks [is] our nation's oldest bank regulator, having been founded in 1851. The banking department … has broad oversight responsibility over some 100 state bank institutions, which include small community and larger regional banks, including some of the largest banks in our country, like the Bank of New York Mellon, as well as our newest bank, Goldman Sachs Bank…. We also supervise … over 2,000 mortgage brokerage entities, licensed lenders, check cashers, money transmitters, budget planners, and a whole host of other activities and individuals engaged in consumer finance. We also license the vast majority of the foreign bank operations that operate here in the United States; in fact we have supervisory responsibility for over 80 percent of the foreign bank assets in this country.

I said I had two hats. My second hat is as one of five members of the TARP [Troubled Asset Relief Program] Congressional Oversight Panel, … having been appointed in November 2008 by Speaker Pelosi. The panel is chaired by Elizabeth Warren, whose name was mentioned earlier in the day and who is widely respected. We have great responsibility. The panel was created under the Emergency Economic Stabilization Act as an independent arm advising Congress on the effectiveness of the Treasury's implementation of the TARP program. We're required by statute to issue reports every 30 days, which we have been doing since the first of last year. Our most recent report, focusing on the foreclosure mitigation efforts by the Treasury, was issued just this morning. I would offer that any of you interested in the work of the panel … visit our website, www.cop.senate.gov. It includes our most current report as well.

I should also mention in relationship to the topic of your conversation that last January we were statutorily required to provide Congress with a report on regulatory reform, an important document that we put together early last year that, even in hindsight, … is still quite relevant.

Another interesting thing about the panel: though there are three Democrats appointed by the Democratic leadership, there are also two Republicans appointed by the minority leadership. I think the work of the panel, particularly where there are areas of consensus, where you recognize the strongly held views by many of us on the panel, really speaks to some of the panel's possibilities.

My views of the financial crisis and the intersection with regulatory reform are largely shaped by not only these roles but also three critical challenges that I faced on becoming superintendent in March 2007. First, it was clear that there was an increasing amount of foreclosures in subprime [mortgages], and the evidence of significant predatory lending. In fact, the day I joined, the headline in the business section was the failure of one of the nation's largest mortgage bankers, New Century. Second were the pending legal challenges to state authority in financial service supervision through cases that went to the Supreme Court, including *Waters vs. Wachovia* and *Cuomo vs. Clearing House,* which started out as *Clearing House vs. Spitzer.* This is the case where Eliot Spitzer, as attorney general, was enforcing and investigating fair lending violations at national banks and was sued by the Clearing House [Association] on behalf of the banks to prevent him from investigating and enforcing federal laws against those institutions. Third are issues around controlling systemic risk, especially with respect to large and complex banking organizations that are active in global markets.

These challenges translate into an urgent mandate for meaningful regulatory reform; namely, protecting consumers and homeowners, modernizing our regulatory architecture within the federalist banking system, and addressing systemic risk. Let me spend a few minutes on each of those.

The first mandate is to strengthen consumer protection. This is a fundamental element that we must and can get right. Examples of innovative approaches to consumer protection exist across the country. An important part of the story of the mortgage crisis is that diverse states like New York, North Carolina, and Wisconsin sounded the alarm on subprime lending and predatory practices with legislation and landmark settlements. Unfortunately, the OCC [Office of the Comptroller of the Currency] and the OTS [Office of Thrift Supervision] did not join the states in this push against predatory lending but actually thwarted state efforts through the aggressive assertion of federal preemptions starting in 2004. Even worse, sufficient federal standards were not developed to replace the preemptive state laws. The current proposal to create a new, independent consumer protection agency has received much attention, particularly as to where such an agency should be housed. In my view, other important issues may be lost in the debate, such as product suitability, examination and enforcement, and preemption.

Let me start with suitability. Much discussion has centered on the authority of the new agency with respect to setting terms around product terms and products. Deceptive terms should be banned, but some potentially riskier features, like interest-only loans, can be right for certain borrowers. In fact, overfocusing on terms alone can harm consumers by perversely incentivizing banks to pursue loopholes to evade regulation. So what really matters is that the product is right for the individual borrower—suitability. Focusing on suitability can impose an even higher compliance duty on the industry, a duty of care … to match the right person with the right product, and to ensure that the borrower has the ability to repay. Ultimately, this turns on the quality of loan underwriting, and here there is a key link with safety and soundness. I strongly believe that federal rules to protect consumers are critical, but that any rulemaking that relates to underwriting standards must be done in partnership with prudential regulators in order to achieve our collective goal of financial stability.

No examination and enforcement: the original Obama plan would have shifted consumer compliance examination authority from the existing supervisory regulators and consolidated it within a new consumer agency. The Dodd and House-passed bill, however, reflects the link to safety and soundness, and would leave primary consumer oversight with prudential regulators for institutions under $10 billion. But even this bifurcated approach to supervision based on asset size creates an unlevel playing field. The examination and enforcement powers of the new consumer agency should, in my opinion, function as a backup to prudential regulators, where the primary supervisor fails to act or takes inappropriate action. The states' system provides an example of how backup authority can work through the registration of the mortgage loan originators under a federal law called the SAFE Act passed two years ago. The SAFE Act leaves primary responsibilities with the states and provides for federal backup in the event that states do not have a conforming program.

Preemption: we need minimum standards across the nation to protect consumers, but rules made by a new consumer agency should be a floor and not a ceiling, thus allowing states to protect consumers beyond the federal floor. The good news is that the Dodd and House-passed bill removed the OCC's unfettered discretion to overall state consumer protection laws for national banks. It would restore balance by reiterating that genuine conflict must exist between state and federal law before federal preemption can occur. However, the OCC may still attempt to create space within terms like *materially impairs* that were added to the legislative language. Experts on both sides of the issue will now debate how much burden a state can impose before it will be found to be in conflict.

It is also critical that the standard for judicial review of OCC rulings would change. The OCC has been granted enormous deference by the courts under past rulings, but under the new bill the courts would now need to be persuaded of the OCC's reasoning. We need to remain vigilant that these improvements for consumers are not bargained away during the legislative process. Many of you who follow national legislation impacting banks will understand and appreciate that preemption is often, if not historically, one of the last issues negotiated by Congress within any major banking legislation.

The second mandate is to modernize our regulatory architecture while preserving the benefits of the dual banking system. Our dual banking system of state-federal oversight may seem cumbersome when compared to more centralized approaches, and there is clearly room for improvement. But there's no one perfect system, and when you look around the world at nations with different and diverse models, you will see clearly that no country has been spared the impact of the financial crisis.

My overriding concern is to preserve and strengthen our federalist approach to financial oversight with a greater level of cooperation and collaboration between federal and state regulators. This partnership between states and federal regulators and supervising banks is good for consumers and it's good for local economies. The original Obama plan recognized this balance and therefore retained the supervisory role of the Federal Reserve and the FDIC to two agencies that share oversight of state banks with state regulators. However, some have called for a creation of a single, monolithic federal regulator. This idea may have appeal on the surface, but there are pitfalls and serious disadvantages to total consolidation. Most notably, a monolith would increase risk of regulatory capture. By this I mean focusing attention. One large regulator at the federal level clearly would focus its greatest attention and resources on the largest institutions that it regulates, and unfortunately, those same large institutions would have an undue ability to influence the actions of that department.

We also lose the benefits of a diverse regulatory system with different regulatory viewpoints that, in my opinion, have improved our system of regulation. A timely example of the benefits of this diversity is the FDIC's insistence on retaining the leverage ratio in the U.S. implementation of Basel II, when other federal supervisors favor dropping this requirement. The FDIC's judgment on the leverage ratio was proven right by this crisis. The subtle genius of the dual banking system, with its decentralized approach to decision making, was also proven right. These are complex financial issues, and we need to weigh multiple opinions, just as in the Olympics we use multiple judges to arrive at a fair outcome.

The new Dodd bill provides an alternative to the monolith concept and intends to be a strong endorsement of the dual banking system. The Dodd bill, as well as the original Obama plan and the

House-passed bill, do call for merging the OTC and the OCC. I support this approach to consolidation, which will end the harmful arbitrage between federal agencies that we all know too well. The Dodd bill also retains what is best in our dual banking system in several aspects. It keeps oversight of foreign banking organizations with the Federal Reserve, which is the right decision for many reasons. This leverages the Fed's extensive experience in capital markets, which also informs monetary policy and gives the Fed an important window into systemic risk worldwide. Importantly, as an alternative to a monolithic regulator, the FDIC would also remain a federal counterpart for state banks.

But I do have serious concerns over the Fed's loss of supervision of state member banks, leaving it with oversight of bank holding companies over $50 billion. This change would create competitive disadvantages that could undermine our federalist approach to supervision from several perspectives. Large state member banks would, as a result of the Dodd proposal, if implemented, would now be triple regulated, with the Federal Reserve regulating the holding company and the FDIC and the state regulating the bank. Thus, these banks would be incentivized to replace this triple oversight with dual oversight by the OCC and the Fed, by converting to national charters. Further incentivizing such conversions, the largest and most complex institutions may question whether the FDIC's extensive experience with small- and midsize institutions is appropriate for them. And, federal preemption also may provide an ongoing inducement to change charters—which is exactly the type of race-to-the bottom arbitrage that we must stop.

Now let me shift to my final mandate of addressing systemic risk. "Systemic risk" is a heading that encompasses many initiatives that we are hearing about over the course of this conference, such as addressing too-big-to-fail, designing appropriate resolution authority, identifying a systemic risk regulator, and dealing with derivatives. But even beyond these complex issues, we need to consider the broader question of what we want our banks to be, both as risk takers and as providers of a social utility. This analysis requires a forward-looking framework focused on avoiding future crises—not one based on what has happened in the past, but on the serious risks of what could happen in the future. This is the context in which I view the Volcker Rule, and the often little-noticed Office of Financial Research in the Dodd bill.

The Volcker Rule, restricting proprietary trading, hedge funds, and private equity activities, is important. It is true, as the critics contend, that these activities did not cause the current crisis; but the proposal is strongly forward thinking because it addresses the core residual issue arising from the crisis. That issue is the scope of the federal safety net through explicit and implicit guarantees. Excessive risk taking through activity unrelated to client business is incompatible with taxpayer guarantees. Some contend that existing firewalls are sufficient to protect insured deposits from high-risk proprietary trading activity conducted in the holding company or its affiliates. But this overlooks the symbiotic relationship among parents, subsidiaries, and affiliates. The market's perception does not distinguish between the parent holding company, an affiliate, and the bank. As a result, negative events within the holding company can create a lack of confidence in the depository's subsidiary. Likewise, the benefits of explicit and implicit guarantees, as well as the funding advantages afforded to the bank, can enrich the bank holding company. These benefits may even subsidize the proprietary activities of nonbank affiliates.

The Volcker Rule also reduces the likelihood of failure by curtailing speculative activities, and prevents the growth of institutions to the extent that they are being driven by these speculative activities. The key challenge will be to draw the right line while doing no harm, by continuing to allow for banks' appropriate role in market making and other client-facing activities.

Before concluding, and very much in line with my understanding of the Levy Institute and Minsky's economic theories, I'd like to highlight another aspect of regulatory reform that, in my opinion, is not sufficiently being addressed in any of the current proposals, and that is the need to focus solely on long-term concerns to address problems before they are brought to light. Just as the military pays attention to emerging risks worldwide and plots preemptive scenarios, so must the financial system. In this vein, we need a financial war-gaming center to build on the proposed Office of Financial Research, an office that seeks to consolidate financial data in a centralized location within the Treasury, as proposed in the Dodd bill. An independent approach to utilizing this information, while maintaining a focus on long-term risks, is key. The financial war-gaming center, in my opinion, should provide regular reports for financial policymakers and regulators, which should be made up of leaders from the private sector, from think tanks, and from academia. The center would have a threefold mission: first, advanced risk detection for a continuous, horizontal look at the financial system, paying special attention to the risk of high-impact events, including those with low probability, or black swans. Other hot spots are rapidly rising asset prices, very high leverage, fiscal and monetary imbalances, financial infrastructure failures, and an overdependence on financial and statistical models.

The second mission is to identify risks of regulatory failure, including gaps in oversight among U.S. agencies and globally, as well as regulatory capture. The right perspective here requires an appropriate distance that an independent view provides.

Third: strategic solutions. The center would lay out options to counter emerging risks based on an independent and forward-looking analysis. Ideally, industry would self-correct based on this early warning and eliminate the need for government intervention. The goal with this forward review is not to make fully accurate predictions about future events, but instead, to think creatively about the range of developing risks and to take preventive steps.

In wrapping up, let's think about it: a year and a half after the financial crisis reached its lowest point, the three urgent mandates for meaningful reform that I have highlighted are the same challenges that I and many of us in this room faced in our current positions on day one, and they still face us today. All of us certainly hope that the Senate's consideration of the Dodd bill will be the final step in this process. If we focus on core mandates to protect consumers and homeowners, to strengthen the state-federal supervisory partnership, and to control systemic risk, I believe the outcome can be transformational.

Thank you very much for the opportunity and the honor to speak to you this evening. I'd be happy to take a few questions.

Q&A

Q: My question has to do with the term *suitability*, which you mentioned in your remarks, in the context of … the trial bar, or trial lawyers. If a standard like that is put in, and given that any kind of financial institution is obviously going to be worried about being sued over this, my sense is that it would lead to much more conservative lending, which I think is probably a good idea—at least 20 percent down on down payments, and pretty conservative credit card underwriting, auto loan underwriting, and so forth, so that we don't have people becoming overindebted. But the problem with that is, it's going to mean a substantial reduction in the availability of credit for those folks who don't have much income and have pretty poor credit records. Yet politically, that's kind of a no-no. We want people to have access to credit; that's why we have 3 percent and 5 percent FHA down-payment loans, why there's a lot of pressure on the banks to lend.

My question is this: how do you reconcile the notion of suitability on the one hand, particularly given the trial bar…, with the other public policy objective of trying to have democratization of credit and the ability of people of limited means to buy on credit?

RN: Certainly as a bank regulator, issues around availability of credit are going to be paramount to my concern. However, having said that, issues around the banks' initial charges that this is going to restrict credit, or expose us to fear of litigation, and therefore will either increase the cost of credit, should not be the basis for not pursuing a duty of care upon financial institutions in offering products. These were the same issues that were presented to us in adopting a duty of care for mortgage brokers in New York State, and some of the duty of care principles you would think would not be controversial—for example, to have to assess whether the customer, or the borrower, had the ability to repay a loan. Whose duty of care? That is an interest of the borrower, and it's certainly in the interests of the institution from a safety and soundness perspective.

So I think you can get the balance right. I think it is an issue that has been avoided in the debate, and I think it is more appropriate than setting bright lines, even in terms of creating vanilla products that have to be offered by establishing product terms that have to be included. Just looking at the issues around an interest-only loan, should interest-only loans be permitted…? The issue is not whether the product is inappropriate. The question is, is it appropriate for the borrower? Is he of a sufficient level of financial sophistication? Is his ownership horizon such that a period of five years, or whatever the interest-only period is, appropriate for his financial objectives and financial condition? So yes, the availability of credit, fear of litigation—issues around safe harbor will have to be addressed. But I don't think it's a reason not to pursue and begin engaging in that debate of duty of care.

Q: I was interested in exploring with you this notion of backup enforcement authority for the Consumer Financial Protection Agency (CFPA). I wonder if you can expound upon that in terms of how you would see that happening in practice. One of the concerns I would raise is how would the organization have the information necessary to know it's time to step in?

RN: When you think about the CFPA—and these are some of the biggest issues confronting the Congress with respect to the powers, particularly those around examination and enforcement—how it would be conducted would have to be based on a real collaborative effort. I think there would have to be a clear understanding based on consumer complaints. This is a real critical area, where, clearly, the present system of the comptroller's compilation of the only repository of consumer complaints, as well as the only one assessing whether appropriate action was taken, [doesn't provide] the proper checks and balances. One way of assuring that the consumer agency would know when action was not taken, or failed to take appropriate action, would be maintaining the responsibility for consumer complaints, as well as having the ability to do spot examinations if there was the need to pursue [a complaint], either through referrals from the state or from others. But I think it would be an issue that would have to be addressed.

Q: I'd like to go back to the question of the fiduciary responsibility—the duty of care—and the different regulatory suggestions that you made. Just to focus on the example of the mortgage underwriter, because I think it's the easiest one—we could talk about CDS [credit default swap] markets, but not everybody's really going to get into that one—if you … really think about what went wrong in the system, mortgage underwriters are farming out the work to mortgage brokers. If you look at the corporate structure of most mortgage brokers, it's an LLC, and it has one or two employees, usually the principle and maybe an administrative assistant, and everybody else is a 1099 consultant. And those 1099 consultants are basically making phone calls, or gathering leads, and then guiding. That's the touchpoint between the public, the consumer, that we're trying to protect, or at least everybody in this room is agreeing that we're trying to protect, and that person is not a principle of the mortgage broker: the mortgage broker is not a principle of the mortgage underwriter. Quite frankly, the mortgage underwriter is not really a principle either, because what has happened since the mid-'90s is, it's a game of hot potato. The underwriter is advancing the monies only because they know that if they put 100, or 500, or 1,000 of these underwritten loans together, they're going to sell them immediately to somebody that's going to put it into a mortgage-backed security, and then the mortgage-backed security guys are going to slice it and dice it and put it into CMBS [commercial mortgage-backed securities], et cetera, et cetera.

If you want to focus on the fiduciary responsibility, the responsibility of trust, why aren't we talking about criminal penalties for the people who are at the touchpoint of the consumer and the banking system—those mortgage brokers—which would put a much higher hurdle on who it is that wants to become a mortgage broker. That's on the punitive side, to disincentivize bad actors. On the rewarding side, to incentivize people not to pursue the moral hazard but to instead pursue something that is consistent with what we'd like to see happen—consumer protection—mandate from a regulatory perspective that the payout to the mortgage broker happens according to the way that the mortgage gets repaid, as opposed to a lump sum that's paid for the hot-potato game.

So kill the hot-potato game at the inception, from the incentive to just underwrite it and pass it on to the next step. Make the payout much smaller, and only reward people who actually generate the kind of future economic cash-flow stream that the mortgage is supposed to represent. Then, on the back end, give [regulators] a real stick, which is a criminal stick…. That's a very powerful concept that you're introducing, the duty of trust, and the people who should be on the hook are the people who, like the snake in the Garden of Eden, are saying "Bite the apple," as opposed to the mortgage company that's hiring and hiring.

RN: Those are great points, and I think we can focus on both…. I mentioned that we regulate over 2,000 mortgage brokers. Those are firms. But in reality, those mortgage brokerage firms employ over 20,000 individuals, and since the beginning of last year we are now for the first time licensing these 20,000 individuals, taking fingerprints, getting criminals out of the business, imposing CE [continuing education] requirements, and doing background checks…. And what we're doing is, we're linking [that information] through the CRD [Central Registration Depository] system, for those who are familiar with what it takes to become a securities broker, so that once this is up and running—49 states are now participating—there will be nationwide, public availability to the system, [allowing anyone] to go in and check complaints and sanctions.

Incentives paid to these individuals are another key issue. That's why looking at undoing the yield spread premiums is so critical. But I don't think you can also avoid looking at the funding entities with respect to who is funding these instruments. In fact, that imposes a special issue. When states like New York adopted antipredatory laws, both back in 2000 and again expanding it beyond subprime and high-cost loans two years ago, Fannie Mae said, "We're not going to buy these loans," because there was the fear of lender and successor liability. That has to stop. And it kind of goes to the issue of fear of litigation, but you have to … provide a safe harbor, create an ability to do due diligence, so that there is some level of insurance by the investor that these loans have been underwritten pursuant to satisfactory standards.

So I agree with you on all points about toughening the actions. That's why we have taken the lead on mortgage fraud. I joined the U.S. Attorney Preet Bharara at his first press conference, which concerned a case that we helped bring against a scheme of mortgage brokers. It didn't receive the notoriety that he and we had hoped, because it was the same day, an hour later, that the balloon boy … captured the entire news. But there will be other actions, I assure you.

The sad thing is that these are the gatekeepers, and the worst cases are where you have mortgage brokers, and appraisers, and lawyers working together in these schemes. And there's no way an individual who once gets in this web is going to get out without being abused.

Q: You said that 49 states are now participating in the CRD system. You have to tell us who the 50th state is *[laughter]*.

RN: Do we recall who has not signed on yet…? No?

But I think the point there is that … that could be a model: before you build a federal bureaucracy to regulate mortgage brokers, put the burden on the states. If there is one state [that isn't a member], then HUD or some other federal agency should serve as the agency. But don't go creating a new federal bureaucracy that has to operate across this nation.

Q: One of the themes of the meeting today is that there are certain federal agencies that presumably had some regulatory power and failed to use it, so there was a question about how much of it was political will, versus actually having the authority to act. I wonder, when you're thinking about this dual system and federal versus state, if you could reflect on your special position in New York and being appointed by the Sheriff of Wall Street [Eliot Spitzer] for your current position, and being in a place where we have so many of the big banks that have been so problematic—the question of political will at the state level, versus the federal level. We know that the banking industry has spent $500 million to buy off Congress, so that's one of the reasons we don't have the reforms that we'd like to have now. Presumably, it would be a little more expensive to buy 50 state legislatures or regulatory agencies—maybe not; I don't know. But the question is about what your experience has been, about the kind of political influence and pressure that gets put on at the state level, as opposed to the federal level, in terms of keeping that balance between state and federal.

RN: Thank you for asking that. I believe I … bring a unique perspective, having started at the Comptroller of the Currency and seeing the issue from the perspective of a federal regulator, but also seeing it from the side of a progressive state like New York—not all states are like New York, or North Carolina, or Massachusetts—and seeing how effective an aggressive attorney general can be. And there are others—Eliot wasn't the only one. Tom Miller from Iowa is an extremely effective attorney general who leads our multistate effort on foreclosure prevention; Martha Coakley from Massachusetts is extremely effective in identifying issues of federal preemption and bringing actions. I haven't given up on the role of federal government. The reason I raise this issue—and retaining consumer examination authority at the federal level is not necessarily politically popular—is, I've seen it work, where you combine fair lending and consumer protection as part of a safety and soundness exam, and the leverage that a prudential regulator has to force change if they are committed to do it. But I've also seen how … federal preemption to assure that the largest banks in the country remain federally chartered can undermine a system of federal regulation.

So I think there are benefits, clearly, to having these multiple judges—again, the example of why we have multiple judges in the Olympics. Think if the sole judge was a French judge. I apologize if there are any French here—I could have picked any country. But certainly, the perception of avoiding a single judge is the issue.

In terms of political pressure, and as dysfunctional as some of our state legislatures are—including our own here in New York at times—the ability of state law enforcement agencies to act quickly, to respond to local needs, is really a unique aspect of our federalist system that I think should not only be preserved but also enhanced. I see no reason why there cannot be this collaborative partnership both at the federal and the state level….

Q: Could you quickly address the issue of regulator shopping by banks? How was that a problem, going into the crisis, and what are your thoughts about it in the context of preemption?

RN: It is an issue, and I think that is why the proposal to merge the OCC and the OTC is so important. Many argue whether we are just moving around the chairs. I think there was clear regulatory shopping in institutions, … whether they were a subsidiary regulated at the state level and then they converted to a subsidiary of a federal institution to avoid state consumer protection laws; or an entity that converted to a thrift in order to avoid regulation as a federal bank holding company. There's no reason that we should have that kind of regulatory arbitrage. There have been stories about whether that even undermines our dual banking system. I have not seen it, and you will not see it in terms of an institution seeking to convert from a national charter to a state charter in order to find a more business-oriented regulatory environment. I get calls—well, I got one this week, in fact: "Would you consider a national bank conversion?" "What are you rated?" "Well, we're rated a three." "Why are you converting?" "Well, we think you state regulators in New York would understand our business model better." Well, I don't think that's … a reason for converting at that stage. It doesn't mean that there will not be opportunities; but it clearly cannot and should not be based on looking for a lighter regulatory touch, or to evade any existing supervisory agreements or the like.

Are there any other points about that you were trying to highlight?

Q: Yes, just a quick follow-up: how do you deal with banks operating in New York, for example, that are regulated by other states with substantially weaker enforcement—who don't have an Eliot Spitzer as attorney general?

RN: Certainly, you can have a bank that's a national bank operating across the street from a state-chartered bank, and that's the issue with preemption. We can pass all the laws we want in New York with respect to consumer protection and credit cards, but we don't have any state banks that are major issuers of credit cards. So the only way to assure that you have that level playing field and consumer protection that will apply, whether you go to the bank on the corner versus [the one] across the street, will be if we get at the issues of federal preemption.

Years ago, regulators used to compete on powers, and we saw what happened: it led up to the S&L crisis. Regulators can no longer do that. A state cannot offer a power that's not … authorized for a national bank or approved by the FDIC. So the only way the comptroller learned to compete, and that states used to compete, … was fees: we were able to operate more efficiently and provide that same level of supervision for a lower fee.

Starting in 2004, the comptroller realized that his real key to competitive advantage was to expand the overreach of federal preemption. When I was at the Comptroller of the Currency, I personally wrote scores of opinions that said, yes, you can create an operating subsidiary. It can only do what the bank can do, but remember: you are subject to state law. You are incorporated under state law and subject to state law. That was expanded starting in 2004, and said that now the consumer laws regarding subsidiaries would be preempted as well. Fortunately, both the House and the Dodd bill will reverse that holding.

Q: I was interested in your ideas about the Center for Financial Research you were describing. The way you characterized it, what you called the war-gaming center sounded very similar to our [proposed] European Systemic Risk Board (ESRB) in various aspects—the early identification of systemic risks and the recommendations to competent authorities, and all the power that is behind it if you make such a recommendation or risk warning. . . . The difference is that you seem to be thinking about an independent [agency] outside of any other institution, if I understood correctly, and to compose the body of independent experts…. The ESRB will be composed mainly of the governors of the EU central banks, plus the European Central Bank, plus a few supervisors…. Why can't the Fed do this as a system, and have decentralized powers [in terms] of the data. . . ?

One answer may be that you want the independent experts in there. That raises its own issues. Actually, the European Parliament has made a similar comment about the Systemic Risk Board, and, of course, about [making] confidential data [available to] outside experts … and the [conflict of] interest that may represent. So why not give this to the systemic regulator?

RN: Certainly, you can see similarities with respect to our systemic regulator, particularly if it's the Fed or even a new council. However, one of the key differences is the level of independence, and that its maniacal focus will be forward thinking—and also, that one of the risks that they should be focusing on is regulatory failure. And that, I don't think, is going to be something that is going to be the focus of a systemic regulator that is part of government.

But there certainly should be information that can be shared with and from a central bank, and you are absolutely right that a central bank has historically been focused on systemic risk, but I think this level of independence, this level of maniacal focus on forward thinking, and the focus on regulatory gaps, both in the United States and globally, would make this a unique and valuable contribution.

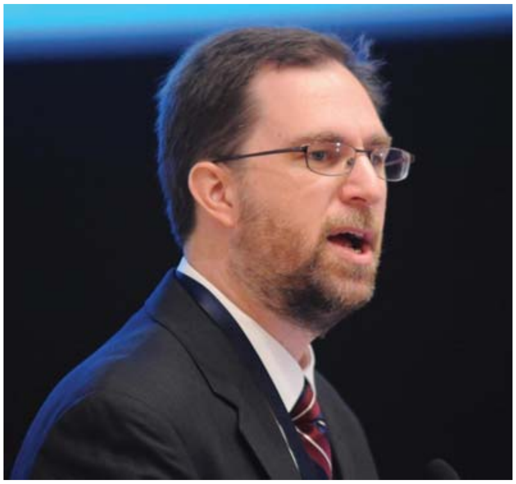
Q: Just to follow up, the Fed is already independent, so why is independence the key feature on that?

The other thing about the Fed is that there is a lot of early warning about systemic risk. If you think back, there was a lot of warning about Freddie and Fannie, for instance. Bill Poole [at the Federal Reserve Bank of St. Louis] was one of the loudest saying Freddie and Fannie were a disaster waiting to happen. You've got Gary Stern, in Minneapolis, … writing a book called *Too Big to Fail* in 2004; I don't think he sold any copies. You've got Ned Gramlich, who's on the Board of Governors, warning about subprime. So there's a lot of systemic warning that already goes on in the Federal Reserve. I think the biggest thing about systemic risk is, suppose you identify a systemic risk. What are you going to do while the party's going on? Who's going to take away the punch bowl? I think that's the biggest question.

RN: Hopefully, the purpose was to create dialogue. I thought this was the audience to do that in. And it shouldn't take away from the systemic responsibilities of the central banks. But you can envision organizations like this. We heard someone this afternoon talking about the reversal of the dollar carry trade and the implications of that. I think there are a lot of issues where thinking outside of our central banks could really contribute, could come up with data that … the industry could base decisions on, as well as providing assistance to regulators as well as our central banks. So I think it's something I would certainly be interested in getting feedback [on]. I've talked about it at other gatherings and have received a great deal of interest, and will continue to pursue it. So thank you for that.

Thank you all again, and it is an honor to be here.

KEITH S. ERNST
Center for Responsible Lending



Before beginning, I'd like to thank the organizers of the conference for the kind invitation to participate in a great first day. I learned a lot.

To my chagrin, though, there's one lesson that stands out from yesterday: one should never agree to speak at the second day of a conference when the first day features the likes of Martin Mayer. In all seriousness, while yesterday provided much to think about, I was struck by three points. First, I wonder if there's ever been a time when the Minsky principle of the ubiquity of financial instability has ever felt more true. Second is the dialectic that we have the duty to promote stability even as we recognize that it is likely unobtainable. Third, I sensed that throughout the day we were talking increasingly about the plight of consumers and how it is central to understanding the crisis we're in now. Since I think we're compelled to learn the lessons of each crisis, I want to continue this theme this morning. Perhaps even if we obtain perfect results for consumers, we could not stop the next crisis from occurring. However, we could certainly make it easier to weather. If we accept the frame that suggests stability is not obtainable, perhaps this is enough.

I'll begin with the story of a consumer, an older woman who is entirely dependent on Social Security for her income. Let's call her Janet. Her story represents a scenario that gets played out every day when consumers get tripped up by fee-based bank-overdraft loan programs. In this case, Janet overdrew her account several times in January and February, and was charged $448 in overdraft fees. This required her to use the bulk of her monthly income just to pay the charges on those fees. At the end of February she had just $18 in her account.

It's easy to see how quickly the situation can become a downward spiral. Janet's next Social Security check will lift her account for a few days, but she still will not have enough money to cover her basic living expenses. In fact, in January and February her utility bills went unpaid because her account balance had gone so low that transactions started to be denied by the bank.

You might be thinking, *Well, if she can't pay her checks, she should be subject to a fee.* Absolutely. But the question is, how much? There are alternative overdraft loan programs that would produce dramatically different results for Janet, requiring her to pay without digging into a financial hole. For example, even at 18 percent interest, Janet's total charges would have come to about a dollar over those two months, leaving her with $420 in the bank. Even if Janet had no overdraft coverage at all, she would have been better off than she was with fee-based overdraft [coverage]. With no coverage, five of her transactions, totaling $242, would have been denied. Two of those would have been debit card purchases and three were checks. Assuming that her debit card charges were denied and that she was charged both a nonsufficient funds fee and a late fee for the check-based transactions, her ending balance still would have been $489, more than enough to cover the denied transactions.

Janet's situation illustrates that overdraft fees can simply beget more overdraft fees. Ultimately, fee-based overdraft coverage prevents account holders from being able to meet obligations they otherwise would meet. In other words, it subtracts rather than adds value. In all, overdraft loan fees drain $24 billion per year from consumer spending. These fees have the potential to provide impressive revenues to depository institutions, but they also pose a significant banking barrier to low- and moderate-income families in two respects. On the one hand, a host of surveys of unbanked populations have consistently shown that hidden or unexpected fees, including those of overdrafts, make checking accounts relatively unattractive. They would rather use a check casher or a prepaid debit card provider. Even if those mechanisms are expensive, the charges are transparent, and the households feel they can plan around them.

On the other hand, the aggressive overdraft policies contribute to involuntary bank closures associated with overdrawn accounts. Part of this [is due to] policies allowing customers to incur multiple overdraft fees per day, levying sustained overdraft fees on negative balance accounts and transaction reordering to generate additional fees. In 2005, federal regulators issued a set of best practices that suggested debit card transactions should not be covered by overdraft loan programs, and that institutions monitor excess overdraft usage that might indicate alternative credit was needed. But those best practices did not have the force of law and have been largely ignored.

Earlier this year, the Federal Reserve moved to require institutions to garner consumer consent to cover overdraft debit card transactions, even though their own best practices suggested it should be dropped altogether. In fact, Bank of America has joined Citigroup in taking the position that such charges and debit card transactions are generally not appropriate or useful for consumers. It is striking that these financial institutions can see the compelling case for eschewing real short-term gains while financial regulators have not. In some sense, my remarks today are about regulators' failure to protect consumers and why we might have more hope that more can be done to elevate consumer interest in a reformed financial regulatory system.

Last week, when Comptroller John Dugan appeared before the Financial Crisis Inquiry Commission (FCIC), he said that if there had been "basic, across the board rules in place ten years ago on income verification, down payments, and teaser mortgage rates, the financial crisis would have been much less severe than it was." He's right, of course. The question is why we did not have such rules in place, and why the guidelines we did have were so ineffective.

A related question, perhaps even more important, is whether there's reason to believe the financial reforms winding their way through Congress will make a difference. This morning, I will look back, and I will also take a look ahead, to address these questions. I will argue that not only did regulators fail to adopt and enforce standards that would have protected consumers, [but they also] acted to nullify beneficial state lending rules. Even more troubling, very little has changed. The regulatory failures of recent years aren't isolated events but have occurred for systemic reasons, a few of which I will discuss. As a result, it is unlikely that our present regulatory system is equipped to protect consumers in the next financial crisis.

Today, however, we have an opportunity to reform our scattershot approach to consumer protections and bring a much-needed focus on how we make and enforce consumer protection standards. I believe that pending financial reforms, and in particular the establishment of a consumer financial protection organization, have the potential to significantly improve regulatory performance. To realize this potential, a consumer financial protection organization should have the authority and autonomy to execute its mission on behalf of all consumers, and it should reflect a commitment to transparency and accountability in its operations. Before proceeding, some background on my organization may be useful.

The Center for Responsible Lending is a nonprofit, nonpartisan research and advocacy organization. Its mission is to protect homeownership and family wealth by working to eliminate abusive financial practices. Since the Center was founded in 2002, it has prioritized producing empirical research aimed at identifying and documenting issues confronting consumers in the financial services marketplace. In addition, a unique source of strength for the Center is our affiliation with Self Help, one of the nation's largest community-development lending organizations. This relationship is important to us at the Center for Responsible Lending because it means our leadership has hands-on experience that we draw on to inform our research projects and policy positions.

In December 2006, the Center published research showing that the subprime mortgage market was about to experience a dramatic increase in foreclosures. At the time, our report was labeled wildly pessimistic by an industry trade organization. Our response was that our findings were neither pessimistic nor optimistic; they were simply our best judgment about what the data were telling us. We were, of course, wrong. Our projection that one in five recent subprime loans would end in foreclosure has proven wildly optimistic.

I tell you about our prediction not to be self-congratulatory, but to make a point. Though I work with an excellent research team, I recognize that topnotch researchers are common in investment houses, regulators, and financial institutions, organizations that have many more resources than my own. In forecasting the subprime crisis, I believe that our true advantage was one of orientation. Our focus on consumer interests led us to ask useful questions at the right time: How are loan products being used and perceived by consumers? How are they being marketed and distributed? What are the outcomes for building wealth and economic security, particularly for families who are living paycheck to paycheck?

Too often, these sorts of questions have gone unasked, unanswered, or unheeded in our regulatory system. The result is a financial services sector that has been at best callous in its regard for consumers' interests. Consequently, in product after product, lenders have placed short-term gains over sustainable long-term business models, allowing negative externalities from unsustainable lending to flood communities. Quite often, those costs are felt most keenly by groups that have been historically the most vulnerable to economic downturns and who are among the least likely to have the wealth to bear them. For example, communities of color were disproportionately likely to receive subprime home loans. At the peak, half of all home loans to African Americans, and a slightly lower proportion to Latinos, were subprime. To be sure, we've seen some reversal in regulatory trends, with federal regulatory agencies more active on behalf of consumers in recent months. But as I will argue later, there are systemic issues that raise doubt about how long this renewed focus can last.

Reviewing the literature on the causes of the financial crisis turns up considerable focus on overleveraged borrowers and institutions, a general lack of transparency in complex debt instruments, concerns about the role of independent ratings agencies and securitization, misaligned incentives for originators, and yes, a skittishness about lending rules and an apathy toward consumers' interests. Generally discussed is a dearth of underwriting standards, regulatory failure, or both.

History will certainly make room for all of these factors, and more. I think, though, that it will fundamentally conclude that overburdened households finally gave way under the stress of a challenging economic environment and destructive debt from loans that were initially targeted to lower-income households but were eventually broken up and sold to solidly middle-class and even relatively affluent households. There is already some agreement on this point. An interim foreclosure report on the causes of the foreclosure crisis from HUD notes that efforts to maintain market share and profits led most participants in the mortgage market in a race to the bottom in making risky loans. Robert Rubin summarized the challenges individual corporate leaders faced when confronting the excess building up in the system, saying, "Fundamentally, you've got to be in there every day engaging in what's going on; otherwise you're not in the business." In other words, even if one recognized the potential hazards, it would have been hard for individual institutions to refrain from lending practices, even very bad practices, that were pouring cash into their competitors' pockets.

It's easy to understand the dilemma of a single lender confronted with an irrational market, but it's harder to understand why institutions acted collectively to forcefully oppose the very changes that would have potentially averted or diminished the financial catastrophe. During the past decade, financial services companies, including real estate lobbyists, have spent $2.3 billion in their efforts to influence Congress, more than the health care, energy, agribusiness, and defense industries combined. At one level, it is clear that many lenders did not believe losses were imminent; on another, however, I believe that they perpetuated unsustainable lending practices quite simply because they were not required to do otherwise.

In the years leading up to the financial crisis, regulators were caught between lenders and advocates representing borrowers. Lenders argued that the growing expansion of credit was to be celebrated. They defended many of the products that have subsequently shown the highest default rates as ideal credit repair vehicles, or as affordability products structured with lower initial payments. Advocates countered that the backloaded payments entailed in these products insured borrowers would need to refinance in another fee-laden transaction, losing equity and reducing the sustainability of home ownership.

In a sense, advocates shifted the focus of the debate from access to credit to the terms of credit. A minority of federal regulators, including the late Fed Governor [Edward] Gramlich, called for increased regulation. And indeed, there were moments when regulators clearly acted to advance consumers' interests. For example, the Office of Thrift Supervision restored the ability of states to regulate prepayment penalties on mortgages made by state-chartered lenders. The Federal Reserve acted to reign in single-premium credit insurance.

But the great weight of federal regulatory force pulled spectacularly in the opposite direction, counter to consumers and ultimately counter to national and global financial interests. The results can be seen best in the aggressive federal preemption of state antipredatory lending laws. The most striking example occurred in January 2004, when the Office of the Comptroller of the Currency (OCC) decreed that national banks could be excused from complying with most state lending laws. The OCC replaced those wide-ranging laws with a single supplemental rule that prohibited lending based primarily on the value of the collateral and without regard for the consumer's ability to repay the loan. When the OCC took this action, it deprived consumers of important protections.

Both my organization and leading academicians, including Raphael Bostic, who now directs policy development and research at HUD, have published results showing that state laws aimed at cleaning up lending practices were working. They had negligible negative effects on access to credit and were consistent with a pattern of reducing predatory lending. Similarly, new research from the University of North Carolina that shows that typical state antipredatory lending laws lowered default rates by as much as 18 percent.

The loss of these protections through preemption [was] not just limited to consumers who obtained their mortgages from national banks. Rather, preemption had a chilling effect on policymakers more generally. Faced with preemption, many state legislatures hesitated to pass strong protections, fearing that their state-chartered institutions would be placed at a marked competitive disadvantage.

But even setting aside the virtues of state lending laws, the OCC's efforts to enforce this and other consumer protections has been roundly criticized. Phil Angelides [head of the FCIC] said to John Dugan last week, "You tied the hands of the states, and then you sat on your hands."

Of course, the OCC was not alone in the preemption arena. Other federal regulators took similar steps. I should note that federal regulators provided guidance to lenders on subprime lending in 1999, 2001, and, later, in 2007. These standards specifically described predatory lending as including "unaffordable loans based on the assets of the borrower rather than on the borrower's ability to repay the obligation." This observation helps clarify that regulators were aware of the risks in the market; but it is clear that their response did not deter lenders from engaging in this very conduct, and in fact helped clear the way for lenders to act without regard to state laws.

Ongoing legislative hearings, empirical research, and the work of independent investigations may help to evaluate more definitively the ways in which preemption and the more general failure to protect consumers contributed to this crisis. It's worth pausing here, however, to touch on examples of where consumers' interests are still being neglected.

Today, more than three years since mortgage defaults started their near-vertical climb, we have yet to see a full range of consumer protections put in place. For example, yield spread premium payments to brokers continue to lead to higher costs for borrowers. Basic protections, like insuring borrowers have the ability to repay a loan, have not been extended to the entire mortgage market, not to mention the collective failure of our institutions to fully develop a postclosing framework of consumer protections.

Unfortunately, problematic lending is not confined to the mortgage market. Along with the issues I have addressed in overdraft loans, at least two other products show the same pattern of disregarding consumer's interests and significant externalities in the pursuit of short-term gain. Let me mention each briefly.

First, credit card issuers have used a variety of tactics to obscure pricing and aggressively sell their products. Hidden fees, highly technical and obscure rate pricing, and arbitrary repricing of existing balances were all on display for more than a decade before action was taken. Moody's recently reported that the federal legislative reforms in the [2009] Credit CARD Act had the potential to reduce pretax, preprovision income by 23 percent. Moody's expects issuers to compensate for most of this loss through repricing and other mechanisms, but the implications of this finding are astonishing. Nearly one-quarter of pretax provision income, or likely the majority of pretax income, was effectively deemed to result from practices so unacceptable that Congress passed reforms banning them on a sweeping bipartisan basis. Before the [Credit] CARD Act, these practices left consumers in what has been called the "sweat box." The hole of elevated finance charges and fees is too deep for these consumers to get out of, but designed to allow consumers to keep their head above water long enough to be extremely profitable.

Some consumers have attempted to get out of this hole by refinancing the unsecured credit card debt into their home. However, a … survey of consumers who paid off their credit card debt through refinancing shows that this tactic typically did not work, leaving these consumers with more total debt and ongoing financial difficulties. Even after passage of the Credit CARD Act, many issuers have not heeded the call for more transparent, upfront pricing, and instead choose to add additional price complexity in the form of a variety of fees that consumers are unlikely to attend to while shopping for the best credit card product.

Second issue: payday lending continues to be seen by some as a constructive short-term credit option despite the obvious analogy to the failed mortgage products that required near-perpetual rollover. Because these loans and their fees must be repaid in full on a single paycheck, the typical payday borrower cannot pay off the loan and meet their other expenses. Consequently, they tend to take one loan after another, paying another fee after each pay period. This loss of funds drains much from families that don't have a lot to begin with. Since payday lenders are the first in line to be repaid, holding a personal check as collateral, households with limited funds typically pay back the payday lender at the expense of other obligations. Research has shown that payday borrowers are more likely to become delinquent on their credit cards, be late on other bills, and delay medical care and prescription drug purchases.

These products help demonstrate that even in the midst of the current crisis, consumers cannot count on the present regulatory system to protect their interest. The natural question is, why should this be the case?

Let me be clear about a relevant point here: while some may attribute our failed regulatory efforts to personal failings of character, I do not. Many dedicated professional staff contribute their considerable abilities and energies each day in the various agencies that oversee lending. Yet this observation makes it only that much more important to understand the systemic nature of the lapses we've seen in recent years. The point is often debated, but I strongly believe there is no inherent conflict between consumer protection and safety and soundness. Rather, the two are mutually reinforcing principles, especially in the long term.

It does seem, however, that there may be a conflict between requiring a regulator to carry out the dual missions of ensuring safety and soundness, and providing consumer protection. By its nature, and for good reason, prudential regulation relies on a unique set of methods and a partnership of sorts with regulated institutions. Financial regulators have long preferred to use the close contact and quiet tools that have become the hallmarks of prudential regulation instead of the explicit rule making and enforcement actions more typical of consumer protection agencies. A quiet regulatory approach is well suited to safety and soundness concerns, where public actions could draw undesirable and unwarranted responses from investors.

By contrast, when making rules for consumer safety, communicating to the public is vital. Regulators need to send clear signals to consumers, to other market participants, and also to other regulators about what troubling activity has been uncovered, how the situation has been resolved, and what is considered permissible going forward. Also, the quiet approach taken by prudential regulators is often inconsistent with the need to provide remedies for consumers that have been harmed. The final interagency guidelines on subprime lending, issued in July 2007, required supervised lenders to consider a borrower's ability to pay an adjustable rate subprime mortgage based on the fully indexed interest rate. The guidelines did not, however, address concretely what should be done for the millions of borrowers who received loans without such consideration.

Another systemic issue in our regulatory system is its balkanized structure, as at least half a dozen agencies hold authority to address various aspects of consumer protection. In the prudential context, primary regulators have clear authority to take whatever steps may be necessary to address concerns. In the context of consumer protection, however, the authority for implementing and enforcing rules is scattered. As a result, it is common for an agency to share in responsibility for enforcing rules primarily delegated by Congress to a third agency. This situation is ripe for murkiness, overlapping lines of authority, and situations where issues slip through the proverbial cracks. If the responsibility for consumer protection standards is balkanized, our regulatory system also presents the related weakness that primary enforcers tend to have clear jurisdictional boundaries that encourage the formation of regulatory silos. Under the current structure, regulators are naturally focused on the lenders under their purview and not generally for examining consumer protection across the financial services sector. This structure is ill equipped to spot problems that cross institutional lines.

For example, in recent months, lawsuits have been filed alleging that major lenders steered borrowers of color to subprime mortgages. This sort of steering activity can be difficult for a regulator to identify if the subprime mortgages, for example, are being made through a nonsubsidiary affiliate of a depository lender, and the depository lender books only conventional, conforming prime or near-prime loans. In instances where steering plays out along these lines, it's nearly impossible for regulators in the silo to diagnose the problem. For example, the national bank regulator sees before it an institution that is making primarily prime loans disproportionately to non-Hispanic white borrowers, but also in fact to a diverse set of borrowers overall, including borrowers with lower credit scores. The regulator for the nonbank mortgage company sees an institution making subprime loans disproportionately to borrowers of color, but also in fact to a diverse set of borrowers, including borrowers across a wide credit structure. If a regulator, however, had a primary relationship with both organizations, it might identify concerns. For example, it might find that a significant number of borrowers of color that received subprime loans from the nonbank affiliate had very similar credit profiles to white borrowers who received prime loans from the bank.

So, to summarize, I have mentioned three systemic concerns with our current system. The different approaches used to execute prudential regulation versus consumer protection, the balkanized structure of consumer protection in our financial regulator system, and the challenge of regulatory silos. Others have pointed to the concern that regulatory agencies may be influenced by the concern that stringent enforcement of consumer protections could lead financial institutions to take their charter, the examination fees they pay, and their market share to another regulator.

I'm sure additional points can be made, but of course none of these critiques of the existing financial regulatory system necessarily mean that a dedicated consumer financial protection organization would be superior. In fact, Chairman Dodd has cautioned that the reform legislation approved by the Senate Banking Committee will not stop the next crisis from coming. No legislation can, he added. Rather, he stressed the importance of providing future generations with the tools to deal with that crisis.

With all due respect to the chairman, I think he understates the legislation's potential. While I agree with him that the legislation cannot prevent every crisis, I believe a properly structured and implemented consumer financial protection organization could help prevent, or at least significantly diminish, the severity of future crises anchored in consumer finance.

In terms of the structure of the organization, five principles are central to its success. First, it is essential that the organization have the authority to set rules for the full range of market participants. The decision to exempt any consumer-finance segments risks creating a haven for irresponsible lending practices that will frustrate the organization's efforts and may actually lead to an uneven playing field. Moreover, consumers should be able to understand their rights without having to understand the precise corporate structure of their lender. It is one of the great oddities of our current system that the protection the consumer receives can vary widely based simply on their lender's choice of a corporate charter.

Second, these rules should represent a floor, not a ceiling. While the benefit of reduced operational costs of having one set of federal rules with which to comply is a relatively easy argument to make, it is hardly the only relevant one with respect to the question of preemption. Indeed, one needs to consider the potential societal cost of having one set of rules, particularly if that set of rules turns out to be lacking. In addition, the benefit of allowing states to identify new and promising methods for protecting consumers is an important and valuable one. The cost for such a frame may have been relatively overstated. Indeed, it may often be the case that a financial services organization with multiple standards may set one set of business practices that has the effect of complying with high standards across the board. At the end of the day, though, the judgment call for allowing states to provide additional protections is a relatively easy one. If a state adopts overly restrictive or inefficient standards, the resulting burdens will almost surely be passed back to the state's own residents. In other words, there's little evidence that allowing a state to make such decisions, even one it might later regret, causes harm to anyone outside of its boundaries.

In fact, we have direct evidence on this point. Georgia first passed its antipredatory lending law in 2002, and revised that law in early 2003 in response to complaints from secondary market participants. Between implementation and revision, some would-be borrowers of subprime loans were inconvenienced; but none of these borrowers lived in South Carolina, North Carolina, Florida, or Alabama. The issue was clearly confined to the State of Georgia, even as it allowed policymakers in multiple jurisdictions to learn from the experience.

Third, the organization should have full autonomy to promulgate rules subject to statutory authority and to appropriate oversight and review. I find it hard, though, to seek a compelling rationale for subjecting the organization's rules to review by prudential regulators. Indeed, while coordination is sensible, such coordination should come before rules are issued, not after. Ultimately, most arguments in favor of this arrangement seem to reflect a fear that the organization will be badly run. The answer to this concern seems no different for the proposed organization than for any other. Administrative agencies are regularly required to conduct open rulemaking processes to get relative input and cost-benefit analyses to show that their proposed action is merited. One tack, though somewhat unorthodox, is to have other administrative agencies in a real sense stand between Congress and the consumer protection organization. Such an arrangement can plausibly be hypothesized to reduce the incentive for Congress to hold the organization accountable since the role would already be filled.

Fourth, the organization should be empowered to enforce those standards to ensure that its rules are backed by meaningful consequences. This means that it must have the right to investigate, enjoin institutions from violating consumer protections, and order monetary and equitable relief for harmed consumers.

Fifth and finally, the organization must have the ability to collect the data necessary to inform its rule making and target its resources for enforcement, whether this is through standard regulatory authority or alternative data collection methods. Without the ability to gain these insights, the organization would lack the information to identify and refine rules or to prioritize the right enforcement actions. Judging by bipartisan comments in recent weeks, there's a very real prospect that some consumer financial protection organization will be enacted, I guess setting aside the comments of yesterday. The precise shape of this entity has yet to be determined, but in the remaining minutes I have here I would like to make the case for an organization that is transparent and fully accountable.

One promising element of the reform that has not received nearly enough attention is the prominent role planned for research touched on at dinner last night by Superintendent Neiman. This role was identified in the administration's original proposal and has been carried through in Congress. For the public to have confidence in the organization, it will be important for it to be transparent as to its data collection, analytic, and enforcement activities. Indeed, the administration recognized this by pledging a regular publication of significant findings about risks to consumers. If confidentiality and close relationships are part and parcel of prudential regulation, transparency and accountability must be at the core of consumer protection.

Indeed, in parallel policy arenas such as food and drug safety, these traits are much more pronounced than has been typical of financial services regulation. For example, the FDA shares detailed research plans, provides access to data, and brings stakeholders together to evaluate evidence. In these and similar contexts, regulatory agencies formulate their positions through open processes and predicated on substantial research that's typically made public. Moreover, the decisions of the agencies and the conduct of the industries [are] subject to ongoing review by independent researchers in academia and other organizations. In fact, we see independent research as so central to the achievement of societal goals in these areas that we provide substantial funding to facilitate it.

In the financial services context, however, the ability of independent researchers to provide this context has been severely challenged primarily by data limitations. Given the nonpublic, decentralized, and personal nature of financial services transactions, it is exceedingly difficult for independent researchers to gain access to the quantity and quality of data necessary to provide useful analysis. In the most prominent example that runs contrary to this general rule, that of the Home Mortgage Disclosure Act, a diverse set of independent researchers has been able to use data to make important contributions, some of which challenge regulators and lenders alike.

Yet outside of [the] home loan context, data is difficult, if not impossible, to obtain. For example, on the issue of payday lending, no regular federal data collection takes place whatsoever. Indeed, the limited information that has been studied consists of survey data and highly summarized information on transactions from a handful of states that require the development of payday lending databases that themselves have not been available to researchers. Any consumer financial protection agency should regularly collect data and, subject to appropriate safeguards, proactively share that data with external researchers. Doubtless, some will complain that the data will be misused and improper conclusions will be asserted. However, in an open society, this risk is always present. The best answer to faulty research tends to be better research, not the elimination of research.

Finally, this commitment to transparency should extend beyond data resources and analytics. In particular, the organization should make it a practice to affirmatively identify its enforcement goals and priorities. It should also fully report on results from those activities, both at the macro level and also at the micro level, with details on individual enforcement actions, including a description of any violations, the terms of any consumer remedy, and other salient features of the action.

Many have questioned the wisdom of establishing an independent consumer financial protection organization. Some have portrayed it as an expensive and needlessly bureaucratic exercise. However, in light of the failures that helped initiate the crisis, ongoing evidence of a lack of consumer protection, and the systemic limitations inherent in our current structure, the need for greater independence and focus on consumer interests is clear. Concerns that the organization will make poor policy choices are conjectural at best.

The most powerful argument against the organization remains the argument that separating the prudential regulatory and consumer protection functions from one another will deprive both resulting organizations of some expertise held by the other. Of course, this need not be the case. If enacted, the organization should establish policies and procedures that promote transparency and accountability to address this concern.

With thanks again to the organizers, I'd welcome a chance to respond to any questions.

Q&A

Q: As you point out, 23 percent of the profits were made from a company by banking in a certain way. As we move forward and banks have to return to profitability, look at the political considerations. Do you think it will continue to be done on the backs of consumers, or will they develop a different model?

KE: The 23 percent of charges were charges that were addressed with the Credit CARD (reform) Act, so [that] specific 23 percent [is] unlikely to return. I think the question is whether we will change the marketplace regulation—whether we will make the structural changes that will result in differences next time. It's clear that markets evolve, that institutions look at rules, examine them, [and] identify profit-making opportunities. The question is whether that profit-making motive, that powerful force, will be channeled into activities that are constructive, that help consumers get ahead, or whether they'll again find their way down through the cracks to practices that really set consumers back.

Q: Just a question to you in terms of the new financial structure in the future: regardless of the fact that we need the consumer protections…, what do you think about the potential for future expansion of alternative banking structures, such as credit unions and cooperative banking?

KE: Certainly, credit unions and cooperative banking have been places where good ideas have germinated. I think the challenge of these sorts of institutions is the ability to achieve scale in this marketplace. We see this time and time again, that promising products are deployed, and the question is whether those lessons are transferrable to more typical retail banking operations.

I have hope that if you do have structural changes in the marketplace, those sorts of business opportunities will appear relatively more promising and more inviting to organizations, so I think structural changes can help encourage the transference of those lessons. A consumer financial protection agency can in fact not just do the enforcement actions but [also] do something to highlight the positive developments of the marketplace. Certainly, from those types of institutions you would expect to see some….

Q: Just as the tobacco litigation led to some requirements that the tobacco companies fund educational programs for smokers, do you see any scope for educational programs based upon fines that might be imposed on the financial industry, so that consumers would be better educated about the use of credit?

KE: I think it's a very interesting question. The role of consumer education is an important one. It is, of course, most important when the terms of credit are offered on fair and reasonably understandable terms. I think one of the pitfalls underlying consumer education and literacy as a primary means of defense is when the marketplace is unregulated and wide open to any sort of abuse that a knowledgeable and sophisticated actor would like to perpetuate on consumers. But if you have a situation where some enforcement action has been taken [and] the rules have been clarified, it seems to me imminently sensible that you would take some of the proceeds from that transaction and potentially use it to educate consumers, to help them understand their new rights and to help them achieve better outcomes….

Q: How do you separate out people who were duped from people who were just plain dopey? If your response is going to be that we need to educate people more, how do you educate people not to be foolish? In other words, what we had was a collective leaving of our senses, where many people were convinced that house prices were going to go up 10 percent a year forever. Is consumer protection going to be able to deal with mass hysteria? Seriously, because I think once we legislate, and once we get a regulatory entity, then the really difficult problem is going to be trying to distinguish between people who were in effect duped [and] those who were just foolish.

KE: Somebody asked me yesterday at lunch, "How do you answer the question of 'Isn't this really the borrowers' fault?'"—that borrowers were acting in really imprudent ways. And certainly, it's true. We can all find examples of it. I would say in every transaction there's a borrower and a lender—sometimes more than one lender. And in the transaction, the lender's fundamental responsibility is to underwrite the mortgage and ensure the borrower has the ability to repay. The borrower's obligation is to be honest and forthright on their application. So underwriting rests squarely in the lender's province. I would say that where consumer protection probably most strongly comes in is with countering the incentive to do transactions that really make no economic sense. If a borrower is being put in a loan primarily because the lender has the ability to pack that loan with ancillary products that the borrower didn't want [and] probably doesn't even know are in there, that's a powerful incentive to get that loan closed. If you take away the incentive by taking away these blatant examples of rent seeking and just fraud, you can do a lot to change the incentive to the transaction—and maybe you can take some of those transactions off the table.

We're a nation of, what—315 million people now? The prospect that, in the next decade, we will have everybody up to the level where they would need to [be to] avoid foolish actions or to spot traps laid for them by knowledgeable lenders is unlikely, so I think the consumer protection can take a big step forward by removing those incentives for transactions that really don't have any business being made. Stronger underwriting standards are key to it, and recognizing that in every transaction that should not have happened, there was a borrower and a lender.

Q: Don't you think that a part of the solution to the current problem, and to set the incentives for the future, should be prosecuting the fraudsters who actually gave out the loans? I heard on NPR recently that 80 percent of the mortgage loans given out by Washington Mutual were fraudulent, and the loan officers were pushed by managers to actually push those loans on consumers; sometimes, even the consumers who qualified for plain-vanilla fixed-rate mortgages were duped into taking on these adjustable rate mortgages. We haven't had any indictments, or [else] the people who were indicted have been acquitted already.

It's been two years since the beginning of the crisis. Don't you think that part of the solution should be to actually prosecute those people?

KE: I do in fact think there are a number of enforcement actions going on across the country. They don't tend to make large headlines when the Commissioner of Banks of North Carolina strips the license of three mortgage brokers and recommends them for prosecution. That doesn't typically appear on the front page of the *Wall Street Journal.* But it *is* happening. I think where there's evidence of criminal conduct, obviously, it should be pursued. Part of the challenge with the entire predatory lending debacle has been that many of these practices were legal under state laws. So while there are instances of fraud being reported in reviews of documents, there are open questions of whether those are criminally prosecutable instances of fraud, or whether people are finding instances that are shy of that line. I think there's a lot of potential that what they're finding are instances where bad judgment has been applied, where the boundaries have been pushed; but you would be hard pressed to successfully proceed with a prosecution.

That being said, states have historically put criminal prosecution and attachment in some of their predatory lending laws. The Georgia state law that was preempted by the OCC had a specific criminal provision in it, so it's there and available to prosecutors who want to take advantage of it.

Q: Can you talk just a little bit more about how much access you have to Congress, [and] how seriously you feel you are being taken? You mentioned that you have differences with Barney Frank. Are those differences on the facts, on the interpretation, or do you see that you're often just not taken seriously?

KE: I think consumers' interests are being taken very seriously in this debate. I think there is a substantial and good-faith effort to deliver a powerful set of … protections to consumers in the reform that's under way in Congress. What the ultimate shape of that form will take will be a product of the legislative process, which is by its nature a process of compromise. There certainly would come a point where my organization and others would judge a resulting compromise to be worse than no consumer protection agency at all. I don't think we're at that point now, and we're substantially far along in the process, so that's encouraging.

As I say, there's still, obviously, [part of the] process to go, and a lot of uncertainty, and many consumer organizations, not just my own, will be active in evaluating and trying to share insights on where that legislation is heading. But for now I think it's safe to say that there's a good-faith effort under way that looks promising.

Q: In that legislative process, and when you [issued] your 2006 report—we're all being very polite, but can you name the people who were fighting you on that report? Can you name your opposition in that political process?

KE: I'll say that our report was generally greeted with skepticism by trade organizations. It's probably available publicly somewhere, but I won't name the individual's name. He's a researcher and continues to be a researcher with a major trade organization, and he made some important contributions. I think he was wrong in this instance, and I thought we were right, and I still think we were right, if slightly optimistic.

In terms of the opposition, Congress has had predatory lending legislation before it for some time now, … for a few years, at least—more than that, I guess. And states have been debating this. North Carolina's antipredatory lending law was [enacted] in 1999. It's interesting, in 1999, when North Carolina passed its law—and it was the first state law [of its kind] in the nation—it wasn't consumer groups alone pushing the law; the North Carolina Bankers Association and a number of lenders actively got involved and agreed, and said, "Yes, we've got a problem in our backyards here, let's clean it up." What we found after that point was more of a circle-the-wagons mentality, where lenders in other states got together and said, "This is not a good idea. We don't think it should happen here," and generally opposed it. That's not uniformly the case.

You didn't ask this question, but I'll also dispel what may be another myth in some people's minds: this is not a partisan issue. In some states where we've had the strongest success we've had leadership either from a Democratic or from a Republican key committee chairman or chairwoman. This is an issue that crosses party lines. I just think that there are disagreements in that the lending industry has been shortsighted in opposing these regulations. We'll see how that changes going forward, but that's been the history of the issue to date.

Thank you.

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Six Doctrines in Search of a Policy Regime

I did not supply a title for this talk . . . [but] I guess now I can give you [one]. The title is "Six Doctrines in Search of a Policy Regime." I'll explain that in a couple of minutes, but let me just say, by the nature of my writing for the *Times,* I have to sort of weigh in on everything and pretend that I understand everything, and like a lot of other people in somewhat related positions, I gave a groan when health reform was wrapped and the focus shifted to financial reform. Because health reform was a really clear subject—endless details, but the fundamentals were pretty clear. . . . You thought about what you wanted to achieve, you thought about how you were going to achieve it, and you ended up with something very much like the reform that was actually passed. I would have liked a public option; there were things I would have preferred to have in it. But the basic form was something that was pretty clear. And while obviously not everybody agreed, there was also a pretty clear left-right division about what the issues were.

Financial reform is not like that. Financial reform is a tortured, complex debate. By my count—and this is where we're getting to—there are at least six different views of what the problem is. I have my own view, … which is basically number two with a bit of number three and number four. But there are these different views. It's not a simple left-right matter. Certainly, there is, as there is in everything, a left-right divide, but that doesn't capture the whole of it. There are a lot of other crosscutting currents.

That complexity leads to a really fractured, almost incoherent, debate, which is an unfortunate thing to happen, as we are pretty clearly barreling along toward a pretty good chance—not certain, but a pretty good chance—that something will be passed in the near future. But I'm not going to talk about legislative prospects or any of that. I thought, instead, that I'd try to talk about what these six doctrines are, and then, after dismissing the ones that clearly don't make any sense, talk about three visions of what reform ought to look like. Again, I have a preferred version but feel extremely uneasy about how well we're likely to do it.

With that prologue, let me tell you what the six doctrines are, just run through them quickly, and then go through in a little more detail, and what's right and what's wrong with those doctrines.

The first doctrine I can just summarize as size. The problem is that the biggest financial institutions have gotten too big—too big to fail; that the core of the problem is that these institutions are too large and too powerful.

The second doctrine is shadows, by which I mean the rise of the shadow banking system—Paul McCulley, who's responsible for the term, is here somewhere—the rise of things that are banks in fact but not banks in law, and that have therefore created a system that has essentially re-created all the vulnerabilities of the pre–New Deal banking system.

The third is opacity—that we have created financial instruments, financial arrangements, that are too hard to figure out. This is where derivatives come in. We've created a situation where both regulators and the people who buy and sell these things don't actually know what they're doing, … a situation that is full of hidden risks—financial weapons of mass destruction, as Warren Buffett said.

The fourth is predation—that the problem is in large degree the result of deliberate exploitation on the part of players in the financial system, a lot of that being about predatory lending, predatory practices toward consumers; but also, more broadly, the notion that there are predatory practices, that there are evildoers, vampire squids with their tentacles wrapped around the face of America, that sort of thing; and that that's a large part of the problem.

Fifth is the view that it's actually government intervention that caused the problem—that it's the bad lending forced upon the financial system by social objectives, that it's bad lending by Fannie and Freddie, that the government created moral hazard that's at the root of the problem. This is a view that is held with absolute fervor, with certainty, by part of the political spectrum.

The last is that it was monetary mismanagement, that all of this is because the Fed kept interest rates too low too long, and also possibly because government officials panicked and spooked the financial markets in the fall of 2008, so that it was really … just specific missteps.

So let me talk through these different views, and then try to talk about why I come down where I do on all of this.

So, size: the fact is that there's been an extraordinary increase in the concentration of the financial sector. The fact is that the biggest firms are much bigger relative to the whole thing than was true 30 years ago. So this is not coming out of thin air. It is in fact the case that we've seen the emergence of these megabanks—except, of course, they're much broader than the conventional [bank]. They often have a depository institution at the core, but they're much bigger than that. And the size argument is that this concentration creates risks. It goes something like this: first of all, that these things are so large that if one of them fails, it wreaks havoc with the whole financial sector, so it makes the system more vulnerable because of that. Furthermore, that because officials realize that, they will step in to rescue one of these too-big-to-fail institutions, and that that creates moral hazard—it creates an incentive for bad behavior. Often tied to this is the view that a crucial part of this whole story was the removal of Glass-Steagall, the ability of institutions to merge together several previously distinct functions, which lets them get much bigger and also lets them take on more risks than a straight depository institution could have managed to do.

I think if you look at the popular discussion, this is probably the most widespread [view]—not so much among people who are trying to look at it more analytically, but in the popular discussion. It's partly because it has such a strong, simple slogan. "Too big to fail" is easy to understand; it grabs people. To some extent, it has the intellectual and moral authority of Paul Volcker behind it—and Paul Volcker in his person demonstrates the truth of too-big-to-fail. If you've met him, you know what I'm talking about. It also turns out to lend itself incredibly easily to abuse. So right now the big news, and I believe tomorrow's column, is all about Mitch McConnell following Frank Luntz's talking points and saying that any plan to have resolution authority, any plan to regulate large systemic financial institutions, is actually institutionalizing too-big-to-fail; and that what we really need to do is get rid of too-big-to-fail by … swearing up and down on the holy collected speeches of Ronald Reagan that we will in fact let these things go bankrupt next time around. That in itself is one reason I need to lean against the too-big-to-fail stuff.

Basically, my view is that there certainly is something disturbing about the increase in financial concentration, and that the political power of these mega-institutions is something to be worried about. And it is the case that in the late '90s, Citigroup was in effect writing legislation to serve its own interests. All of that is true. But I don't quite see how it makes sense. I don't see how it makes sense as a story about the crisis, and I certainly don't believe that even shrinking these institutions or breaking them up would do very much to avert future crises. To explain why I think that, I need to go on to the second point, which is shadow banking and its risks.

When you think about financial crises, basically I'm a Diamond-Dybvig guy—which, for those who don't know, is the classic early-'80s paper modeling bank runs, and basically arguing, what is a bank? A bank is something that allows people to have their cake on demand and eat it too. A bank is something that allows individuals to have what appear to them to be highly liquid assets and yet allow their wealth to be invested in illiquid ways. A bank does that by exploiting the law of large numbers on any given day in any given period, only some people will want their money out. So a bank accepts a bunch of deposits and puts a fraction of them aside in liquid form, but the rest can be invested in illiquid projects…. In the original model it's not that clear about exactly what makes these projects illiquid, but we can think of all kinds of reasons—information issues, which make it hard to sell off assets, and so on down the line….

The conclusion of that paper—which real-world practitioners have always known—is that banks are useful but extremely dangerous. They allow people to reconcile their need for liquidity with the economy's need for investment in the liquid projects, but they're also vulnerable to crises of confidence—that if everyone decides to pull out their funds at the same time, you break the bank. And everyone *will* decide to pull out their funds if they think that the bank will be broken, which means you have the possibility of self-fulfilling crises. Obviously, … you can imagine that there might be real-world events setting off that crisis. There might be actual losses on those illiquid investments that the banks make; but the point is the vulnerability of the system to bank runs.

Diamond-Dybvig, in the original version, said, "Well, you know, we actually solved that problem with deposit insurance." And, indeed, we did for depository institutions. Deposit insurance is a positive insurance because it rules out the possibility of bank runs. [But] that immediately raises other problems. Deposit insurance creates moral hazard. It creates the opportunity for the owners of banks to play heads-they-win-tails-the-taxpayers-lose, and to take on risky investments. So, along with deposit insurance comes a regulatory regime that has things like prudential regulations on what banks can invest in, and capital requirements, liquidity requirements, and so on. But put all that together and it come out with kind of a rationalization of the New Deal bank regime and a kind of explanation of why it seemed to work so well. It's actually not an historical story about how that regime was evolved. The reality was, FDR was dead set against deposit insurance, and sort of was forced into accepting that as part of the package; but it does kind of tell us a story.

Shadow banking—one of the things that, once it was pointed out, was obvious, but it wasn't obvious until it was pointed out. Again, the term is from Paul McCulley…. Minsky, back in the '70s, talked about the growing importance of fringe financial institutions, by which he meant pretty much exactly the same thing we now call shadow banking. So it was already on the rise then, though the real takeoff is after 1980.

What happened was that almost everybody—not Minsky, it turns out—fell for a fallacy of misplaced concreteness. We have a model of a bank, and we have a legal definition of a bank, and a picture of a bank; and we assume that those correspond to one another, that a bank is basically a big marble building with rows of tellers. Of course, if you take the analysis seriously, a bank is anybody who borrows short and lends long; who offers liquid assets but invests most of the money it raises in illiquid investments. That can be lots of things, but, in particular, repo, which turned out to be, in economic terms, the same thing as bank deposits and exposed to the same vulnerabilities, but without the regulatory regime and without the insurance. So we re-created the old system. Like a lot of people, I took Jamie Dimon to task for his blithe remark, in testimony, that a financial crisis is something that happens every five to seven years—no big deal. It was not at all true for half a century; but it was true if you go back to the old national banking system. There were, in fact, frequent bank panics, and in effect we re-created that kind of system. That's the view that I believe is right.

A question you have to ask is, where is too-big-to-fail in this story? The answer is, it's certainly not in the model. Diamond-Dybvig is actually a model of atomistic banks. Not one of them is large, which doesn't matter: the system can be collapsed. You can argue that, historically, banking panics have not necessarily involved big players. If you go back to the great bank collapse of 1930–31, which many people believe is what made the Great Depression so great, that was started with a run on the Bank of the United States—which, despite its name, was actually a local New York institution, mostly in the Bronx, and was the 28th-largest bank in America. Yet the collapse of the Bank of the United States set the dominoes falling. In 2008, Lehman was not all that big, and yet the consequences were catastrophic—the point being that you can have bank panics, you can have these speculative attacks on the whole banking system or this loss of confidence, even without large institutions. There may be no institution that is individually too big to fail, but the whole point of a banking panic is contagion—the spread. So it doesn't matter whether there are really big institutions or not. Actually, to some extent, if you go back to what happened in 1930, the Fed kind of had a doctrine of too-big-to-fail. They figured it was ready to stand behind the biggest banks, which did not fail; but it figured what harm could be done if this bunch of upstart immigrants with their bank in the Bronx failed? The answer was, a whole lot.

So that's where my problem is. I basically have no love for megabanking institutions, and would not shed any tears if they were broken up. But I don't actually see that that's at the core of the financial problem.

Three, opacity: what about complex financial instruments? I have to say, personally I'm dreading having to write about this because I don't understand a lot of what's going on. I'm working on it, right? But it's very hard, and maybe that's the point—that we created a lot of financial instruments that are extremely hard to figure out. Famously, of course, in mortgage-backed securities we created things that the rating agencies, who supposedly can do some homework, were prepared to class as triple-A—and obviously totally failed to understand the risks. But in general, we created something where certainly the regulators couldn't keep up, and arguably the people who were buying and selling these things really just did not know what they were getting into. Updating an old joke: what do you get when you cross a godfather with an investment banker? … Somebody who makes you an offer you can't understand *[laughter]*.

I guess I don't see these as being at the core of the crisis, but … they certainly raise a lot of problems for creating a stable new regime. I'll get to that as best I can, because I have to admit, I'm not fully in control of that issue.

Predation: there clearly was a lot of predatory lending that went on. The crisis has ended up being much bigger than subprime and Alt-A [mortgages], but certainly it started there. Subprime was largely pushed on people who did not [understand them]. As the late Ned Gramlich famously warned, the most complex loans are being pushed upon the people who are least able to figure them out. So there was clearly a lot of that. … I've been writing about this recently—the surprising story of Texas, which has been largely spared the worst of this crisis. You could say, well, it's because it's a free-market state; but so are others. You could say it's because it's what I call a flatland state, where urban areas can spread and housing prices really can't rise that much, so they couldn't really have a bubble. But then there's Georgia, which is the same thing, and yet Georgia is actually the [site of the] worst banking crisis in the country. What Texas did have was, dating back to before it joined the United States, pretty harsh restrictions on the ability of people to run up debt, and, arguably, those restrictions prevented a lot of predatory lending.

So you can certainly argue that consumer protection is an important piece of avoiding these things. I don't think it's at the core of the bank instability issue, but it certainly is a piece of it.

I haven't figured out where I am on vampire squids and all that, so I'm going to just leave the Goldman issue on the side, because it may be important, but I haven't actually figured out a position on that.

Government intervention: if you read papers from the Heritage Foundation or Cato, let alone listen to talk radio—which I don't, but I get it sort of thirdhand—the notion basically focuses around the Community Reinvestment Act, which supposedly forced lending to the undeserving poor; and Fannie and Freddie. On the CRA, that's easy, right? First of all, this is a 1977 act, which somehow mysteriously had no problems until 30 years later—besides which, the great bulk of subprime lending was undertaken by mortgage originators, by institutions that were not covered by the CRA. This is not sensible. Fannie and Freddie—certainly they're going to end up being bailed out at fairly substantial taxpayer cost, and they did in the latter stages … stray beyond their normal prime lending role. However, the simple fact is that they were actually largely out of the market during the worst of the bubble: the accounting scandals had forced a sharp pullback by Fannie and Freddie from 2003 through 2006. So, exactly at the moment when the craziest, worst lending was made, it was not the government-sponsored enterprises that were doing it.

I would also say that for people who believe that government intervention must have been responsible because, left to itself, the private market makes sound decisions, the entire history of banking tells you that that's wrong. Long before there was anything remotely like Fannie and Freddie, there were regular banking panics. … If you want to know how far back you can go to get an eloquent, determined explanation of the need for stiff bank regulation, the answer is it's in Adam Smith's *The Wealth of Nations.* Adam Smith was all for laissez-faire, but not when it came to banks. The reason was that just a few years before he published the book, there had in fact been a nasty banking crisis in Scotland. Scotland basically pioneered modern banking, and it also pioneered modern bank crisis. It's not a serious position, but unfortunately, it's a nonserious position with a lot of serious political muscle behind it, and it does really cloud the debate.

The last bit is monetary mismanagement. There's a range of different people making this kind of case, from the neo-Austrians, the most extreme, to people I would normally regard as serious—John Taylor—arguing that the Fed kept interest rates too low, too long, inflating the bubble; and arguably, that fumbling by the authorities, particularly over the money market funds in the fall of 2008, made the crisis much worse than it needed to be.

I can see how you can make that argument; I guess I don't buy it for a couple of reasons. One is that it's just not obvious to me even now that interest rate policy was wrong in the early years of the past decade. You did have an economy that was persistently underemployed. You had decelerating inflation with some real concern about it sliding into deflation. Yet at no point did we ever end up with anything that looked like an inflationary overheating of the real economy. So are we really arguing that the Fed should devote interest rate policy to targeting asset prices? This debate has been badly phrased a lot in terms of, well, what are the parameters on your Taylor Rule?—which I don't think is helpful.

I think the point is that even ex post, monetary policy doesn't look that crazy. If you say yes, but it turns out that, given the system's vulnerability to crisis, the monetary policy was the wrong thing … even if that's true, surely your moral from that ought to be that any system that is that vulnerable, any system that can be thrown into a total crisis by monetary policy that looked fairly sensible at the time and continues to look defensible even after the fact, it means the system is too unstable—that there's something wrong with the system. I would say that that applies doubly to arguments that say that Henry Paulson said the wrong thing on some day in September, and that's what caused the crisis. If that's true, then there's something terribly wrong with the system. Any system that depends on the Treasury secretary always being not just wise, but also well spoken, is not going to be a system that's going to survive.

Given all that, what do we do? Actually, before we get to what we do, I think in a way the mystery that we sort of need to solve is not why do financial crises happen, because that's easy. The mystery is, why did we have a system that was so free of crises for so long? How did we do that? Which, surprisingly, is not yet a settled issue.

I think it's pretty clear that deposit insurance basically ruled out traditional bank runs, and that's a good thing. But I think the puzzle really is, why didn't deposit insurance create lots of moral hazard? Why wasn't there a lot of irresponsible lending and maybe even looting all through? Why did it work so well for so long? And we do know that it was possible for that to happen because of the savings-and-loan disaster. While it was never a systemic banking crisis, there was in fact moral hazard and, to some extent, looting run wild that was clearly enabled by deposit insurance. So why wasn't that happening all along?

Part of the answer was that there were restrictions on leverage and types of investment. But even after the fact, … it's really hard to convince yourself that they were, by themselves, enough. I guess I'm partial to the view—and this is important, because we're trying to figure out how to re-create something like that success—that franchise value may have played an important role; that we actually had a not-very-competitive banking system. Limits on the interest rates banks could pay, limits on entry—basically, banks were cash cows.... Bank management was unwilling to take risks that might end up killing the cash cow that laid the golden egg—something like that *[laughter]*. . . . In effect, banks were much more well capitalized than they appeared to be on paper, because they did have this franchise value. There is a literature arguing that. It's not as definitive as I'd like; it's kind of disturbing. I'll explain as I get to the end.

So what are we going to do? As I see it, there are actually … three visions of reform that are out there. One of them is to eliminate too-big-to-fail; basically, [to] let it be known that financial institutions will be allowed to fail, and then market discipline will induce them to not take excessive risks. That's certainly the ostensible argument being offered by Mitch McConnell right now. There are shades of it, although when you read carefully, he's more careful—somewhat in [line with] what Paul Volcker says. The argument in general is that we're going to shrink this down so we don't have mega-institutions that can't be allowed to fail. We will allow institutions to fail, we will have bankruptcies, and that will discipline the financial system.

As you can gather, I think of that as a total nonstarter simply because, even if you manage to break up the too-big-to-fail institutions, the possibility of contagious bank panics remains—that, again, Lehman was not all that big; the Bank of the United States in 1930 was certainly not big. The fact of the matter is that it's not acceptable to allow financial institutions to fail and set off domino effects, and that in practice we are not going to allow them to fail. There was no contemplation all through the Bush administration of the idea that [government] would come and bail out financial institutions in trouble; but when push came to shove … they actually *did* allow Lehman to fail, and under a lot of urging from conservative commentators. Within three days they found themselves staring into the abyss, and said, okay, no more of that. …

Second is to try and re-create as nearly as we can the system we had during the quiet period, which would mean basically going back to plain old-fashioned banking. … I take Paul Volcker very seriously for very good reasons. If I disagree with him, I really want to know how secure I am in that. Reinstating Glass-Steagall—the division between investment banking and depository institutions is intended to be a start there. The idea is that we're going to take a hands-off attitude toward the fancy stuff, but we will of course stand behind depository institutions, as we always have. There's a fair bit of talk about narrow banking, talk about various ways in which you could try to say we're going to keep banks doing very, very safe things, and that that will avoid the problem. I guess my view on that is that shadow banking is here to stay—that we're not going to be able to stuff it back into the box. That whatever you do, you're not going to be able to ban repo; you're not going to be able to ban people financing long-term illiquid investments with short-term debt in ways other than conventional bank deposits. Therefore, whatever you try to do, if you try to say we're going to protect the depository system but not the other stuff, you're going to find yourself back in the situation we were in the fall of 2008. You're going to find yourself with shadow banks that are in effect creating money. That's really the point. The money supply is not M2; the money supply is M-2 plus a bunch of other stuff that is probably bigger than M2, because anything that people regard as being readily available cash is money, and we're not going to be able to stop that.… I have a lot of nostalgia for what Gary Gordon calls "the quiet period," when these terrible banking crises seemed to be a thing of the past. But I don't see how we get back to that old system.

So the third option, which is kind of the vision behind what the Dodd proposal— or for that matter, the Frank bill—does, is that we're going to try to create a sort of updated 21st-century version of the old "quiet period" system, but [rather than] trying to kill shadow banking, try to bring it into the tent. There's been surprisingly little discussion, actually, about the 21st-century version of deposit insurance. … None of the proposals I've seen actually get explicit at all about what will be guaranteed, but I think that's because everybody takes it for granted that now there is an implicit guarantee—that in fact, short-term debt of systemically important institutions will be backed up in a crisis. I guess to some extent the resolution authority would be a way of making that effective, but it is interesting that there are no real explicit rules, and that worries me on a number of fronts. I always do a little bit of stress testing of financial form and ask what happens if we have another financial crisis, and Sarah Palin is president and Ron Paul is Treasury secretary. Now, maybe no system would survive that, but if you'd like to have some rules in place, clearly what you need in this 21st-century version of the New Deal system is resolution authority. You need a way to seize complex financial institutions, shadow banking institutions, in what amounts to a de facto version of what the FDIC can do with depository institutions. How important was lack of resolution authority in this crisis? I was of the belief that it … would in fact have been possible to seize Citigroup—which for a while looked like it might be necessary, and we can hash that over—but there was no simple legal authority to do it. My idea—it's funny, I've got two *Godfather* references here—was basically [to use] the Corleone approach. You go to the CitiGroup stockholders—at that point, the stock was only worth a billion dollars—and you basically say, "We're going to buy you out, and you'll be really sorry if you don't agree to this." But I do know firsthand that the White House and Treasury [were] very nervous about anything like that—that a lack of legal clear resolution authority was a factor. So you really would want to have that, and that would give you the ability not to let institutions fail. You keep them … in existence, but it is a way to clean out the stockholders and possibly force some of the long-term debt to take a haircut in a crisis. So that's clearly something you need.

You clearly need restrictions on leverage. The House bill has an explicit 15-to-1 max, but that was not really a carefully thought-out policy. That was actually something that slipped in, in dead of night, as I understand it. And the Dodd bill, it's all [about] the regulators, at their discretion, [setting] limits—which, again, makes me nervous…. Palin-Paul—I sort of think of that situation.

And then there's a lot of talk about how modern complex financial institutions can always find a way around any rule. I'm worried by that. I think it's worth putting it in there anyway, and then trying pretty hard to make it work; but I do worry it may be hard to do.

Derivatives reform: the way I think about it, that's something that you kind of tie to the leverage risk-taking issue; that pushing these things out into light of day—and again, I feel extremely uneasy on this whole topic—making them as transparent as possible, as visible as possible, is going to make the task of doing the other stuff easier. It's not so much that derivatives per se are the force of evil as that they make it so much easier, or so much *harder*, to keep track of what's going on, and therefore so much harder to take prudential action.

What really worries me is this: what if the secret of the quiet period really was the franchise value? What if the secret of the … roughly 50 years of no systemic crises was the fact that there wasn't a whole lot of competition in banking, and so banks were inherently valuable stuff, and you had sleepy, happy bankers who weren't going to take big risks because they were sitting on automatic cash-generating machines? Certainly, … no one can explicitly say, "That's our plan. Our plan is to make our banking system uncompetitive and basically give consumers a raw deal so that the thing is so profitable that it won't make big mistakes." Yet that is kind of how the system used to work. There is some sense that we may, for the moment at least, be de facto creating something like that. There's been a lot of shrinkage and reduction in the amount of competition in the system in the wake of the crisis, but it doesn't seem like a long-term policy.

I should note, I guess, that in a certain sense this almost cuts against the too-big-to-fail concern. Having a highly oligopolistic banking industry is one way of creating market power, franchise value. . . . Everybody talks about the Canadian example, where there are really just five banks, and part of their secret might have been just the franchise value—although, for what it's worth, the empirical research I've seen, including some by one of my own students now, suggests that the real secret of Canadian stability and of Israeli stability (which turns out to bear a close resemblance) is actually reliance on depository funding, with much less wholesale funding; that the real trick was basically Canada is still kind of a pre–shadow banking banking system, and if we can't go back to that, then we can't really do what they did.

So where we're going in practice, I think, is intelligent. I don't think I've said anything here that you couldn't hear from Larry Summers, but I'm really kind of nervous, because it does seem to me that we're taking a bunch of steps in the right direction. But I'm not at all sure that anything that we're likely to do is going to be sufficient to really recreate a stable financial system. With that, I can take some questions.

Q&A

Q: I would like to see the academic community take some more of the blame than you seem willing to. My colleague Barry Bosworth says diversification devalues knowledge. A great deal of formulaic work that was done with academic biasing [shows]—as they say in Chicago, in the pits, where they deal with these things—that people who sell volatility eat like chickens and shit like elephants. And this has been promoted to a significant degree from inside academia. Do you want to think about what sort of controls we can put on the intellectual explorations with other people's money that get done at the university?

PK: Can I say that the Princeton Finance Group has been really good on these things. The trouble is, of course, people. [The concept of] efficient markets was certainly an enabling factor in actual ways. It encouraged the belief that the markets must by definition know what they're doing, so it encouraged complacency; also, a lot of the design of complex financial instruments rested on this stuff, because if you have efficient markets, then … you know how to price things, you know how to design them. So all of that played a role. I think in defense of my profession I would say that we had banking panics long before we had finance professors, … but certainly the profession has not covered itself with glory.

Q: You raise an important point; that is, why we had that period free of crisis, mainly after the world war, 1946 to 1966. For me, the reason why is that … [we had] both big government and the big bank, and [then] after that period, balance sheets were full of safe and liquid government securities. So would you say that you favor a more aggressive fiscal policy right now? And more than that, Minsky also favored job creation by the government—do you favor that right now for the U.S. economy?

PK: Yes, I do, but not as a way of supplying liquid assets to the banks…. I don't think that's the issue. I mean yes, on different grounds. We're in a liquidity trap. Conventional monetary policy is at its lower bound, and fiscal policy … and unconventional monetary policy are all we have, and this is still a time when we ought to be really aggressive…. If I thought it had a snowball's chance in hell of passing Congress, I'd be arguing for another $500 billion stimulus. But the truth is, nothing's going to happen. We'll be lucky if we can just keep unemployment insurance and COBRA extensions going, and maybe a smidgeon more aid to the states. Maybe I should just not worry about what's politically possible and spend a lot of time arguing for what's right; but I think to some extent you are trying to move things in Washington, and that's not going to happen.

Q: You once called the Great Depression of the 1930s "a gratuitous, unnecessary tragedy." Would you apply similar words to the recent financial crisis and great recession? That's number one….

You and [economic historian Niall Ferguson] were at the same panel on financial crisis a month ago in New York City, and … [he said] that because of the conflict between monetary policy and fiscal policy, we'll have a rising interest rate in the long-term interest rate. You said no…. Do you still have the same view?

PK: . . . If you ask "Where are we right now?" Tim Geithner says unemployment is at unacceptable levels, and likely to stay at unacceptable levels for quite a few quarters to come. Ben Bernanke says more or less the same thing. But obviously it's *not* unacceptable, because we're accepting it, right? There are . . .

policy tools available. The Fed has the ability to expand its balance sheet further; it could raise its inflation target; we could have further fiscal expansion coupled with measures that will bring the deficit down in the longer run. All those things are technically economically feasible. They're politically *not* feasible, but that, in a way, is the point. We do have the tools; we do have the analysis to deal with what is really a colossal waste. We're sitting here with one in six U.S. workers unemployed or underemployed, and not because the factories aren't there, and not because the resources aren't there; but because we've got what amounts to a kind of traffic jam in the economy, something we should be able to sort out, and we're not doing it. So in that sense it is a diminished echo of the Great Depression…. What I've been saying quite a few times now is that at this point the Americans really owe an apology to the Japanese, because we went through that long period of the lost decade—now the lost two decades—in Japan, berating the Japanese: "Why don't they actually do what it takes to get their system going again?" It turns out that, faced with the same situation, we do the same thing….

Q: I'm surprised that you didn't put more emphasis on the issue of leverage as contributing to this crisis. My recollection [is], it was [SEC Chairman Christopher Cox who] removed the limitation of leverage on the investment banking community. At that time, I think it was something like 10-to-12, which was sort of approved. Once he removed the [limits on] leverage, he never put in [place] a process to control what was going on. The … published leverages achieved more than 30-to-1, not counting some of the off-balance-sheet liabilities that these firms had. On a competitive basis, the commercial banking industry went to the FASB and got them to approve the off-balance-sheet SIVs, which to my knowledge the Fed never required them to put capital against.… You mentioned there's a bill that [limits leverage to] 15-to-1. I asked a founding retired partner of a major firm, when they were a partnership, what kind of leverage did they have? … He said, "When it got to 6-to-7, we all got nervous." So the question is, why not the emphasis on leverage?

PK: Actually, my view is, leverage is probably the single most important thing. When I was talking about capital requirements and so on, and the whole business about franchise values—that, in a way, is saying that the true leverage of commercial banks was much less. On paper they had leverage of 10- or 12-to-1 but in reality it was more like 5- or 6-to-1. And by the way, in the pre–New Deal era, commercial banks often had capital that was 20 percent of their assets. So I think … that we should have leverage controls, and [that is] a key issue in reform. But there's a lot of skepticism now about whether the leverage can actually be monitored, or whether, in fact, the financial firms will be able to run rings around the regulators and make it appear that they have much lower leverage than they in fact do.

But, no, the classic argument is … that the liquidity and maturity transformation of financial institutions creates vulnerability to panics. Some kind of deposit insurance or its equivalent rules out the panics but creates moral hazard, so then you have to have leverage limitations to limit the moral hazard. That's kind of the catechism here. The trouble is making it effective. Also, there's a lot of pushback. Alan Greenspan in his recent Brookings paper went on and on about how you can't reduce leverage too much because it will prevent the financial industry from doing what it has to do. Of course, I'm quite hostile to that point of view, but it has a lot of support.

Q: Do you think the failure of 14,000 banks between 1920 and 1933 had any effect on the unwillingness of bankers in the quiet period to take risks?

PK: Maybe the financial industry was different; it probably was. But my . . . reading of things has been that memories are incredibly short, partly because so many . . . risky financial decisions are made by 28-year-old guys who don't know anything. . . . The thing that really strikes me is how could we have had that monstrous housing bubble just a couple of years after the dot-com bubble? To me, at least, the similarities were overwhelming—not just the numbers, but the psychological feel of it. So you went from everybody watching NASDAQ numbers on CNBC to everybody watching *Flip This House.* Yet people acted as if there was no overlap. And that, actually, is closer to my home field. There's a lot of literature on sovereign debt defaults and how long countries are actually excluded from the market after having defaulted on debt, and it's amazingly short. So the idea that you can explain a 50-year period of tranquility by memories of the '20s and '30s is, I think, hard to buy.

Q: After the New Economy failure, the decline and the revival—which seemed to be based, as it was almost universally stated, on the wealth effect, and the wealth effect, of course, created the basis for the rise in all kinds of investment values—do we still have the necessity for a wealth effect, and therefore rising asset prices, which are conducive to crisis? That's one thing I'd like you to comment on. And the other: what's the relationship to what the source of the need for the wealth effect is, which is, perhaps, the redistribution of income, so workers don't have mass purchasing power to the extent that they had, given the size of the GDP, as well as the deindustrialization that's taken place in this country? They're related to the financial crisis, don't you think?

PK: It's not the case that the asset bubbles were created deliberately through some strategy. I think that that's not quite right. The thing that I find concerning is that it is hard to tell the story about where the numbers come from to restore full employment in the United States—consumer demand, presumably, although I've been amazed at how strong consumer demand is right now. But the idea is that the loss of net worth and the high debt levels will restrain consumer demand, [and] housing is not going to come back. To make up for that, business investment would have to be way above its normal levels as a share of GDP. So how does all that work? And then you ask the question, "Well, why was it that for a long time we were able to have full employment without a housing bubble, and with an 8 percent personal savings rate?" And that's interesting, because when you try to figure that one out, the answer is … the trade deficit. So if you actually ask, "Where are the numbers? Why has it become so hard to come up with a sound-seeming way to make the United States have full employment?" the answer is, the trade deficit is what changes the way the numbers add up, which says that something has to happen—a global rebalancing. I think it's going to be very hard for the world as a whole to have a full recovery as long as you've got these massive surplus countries—China, but also Germany. So I think there is a story there….

Much as I crusaded for measures to reduce inequality, I don't actually think that's the core of the issue. Consumer demand has been high in the United States. It's been high in part because people borrow, but it's also been high because highly unequal distribution of income generates a highly unequal pattern of consumption. Unattractive as it may be, you can, in fact, sustain an economy with people buying luxury goods as well as people buying mass-produced staples….

Q: I just want to get the issue closer to your specialty of international economics, because most of the conversation was domestic and about what we do in terms of rebuilding the U.S. financial system. So my question relates to how much and what kind of international cooperation among regulators in the world is needed to rebuild that sort of sound global financial governance that we're asking for and that we need?

PK: The answer is, everything has to be coordinated. There has to be a Basel IV, because Basel III is already under way, but it's only depository institutions. And, no, if you have strong restraints on shadow banking in the United States but people can just rip the stuff through London, you haven't gained anything. If you have restraints in . . . New York and London, then it gets a little bit harder, but you do want to worry a little bit about the possibility that people will engage in irresponsible shadow banking from Bahrain, or something like that. So you do need an international agreement. I think it is something you can do pretty well as long as the United States, Britain—which is outsized in this area—and the eurozone agree on it. I think we can probably get the rest of the world into line, but it does have to be coordinated. I don't think it's a daunting task. Actually, if the United States is prepared to show some leadership, it shouldn't have that much trouble getting the Europeans to go along with it, and then we can bully the rest of the world into doing the right thing. But it does have to be coordinated. This has been an awesomely global crisis.

One thing that is worth saying: we talk a lot about the United States and about all the things that went wrong, but we need to bear in mind that Europe essentially had its own comparable crisis. This is really a North Atlantic crisis. The Spanish housing excesses and the Irish housing excesses match those of coastal Florida and Southern California. . . . Somewhat different methods, somewhat different institutional structures, but we basically managed to screw up equally in our own different ways on both sides of the Atlantic. So we both need reform. . . .

Thank you.

JAMES BULLARD

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Containing Risks in the New Global Financial Landscape

Hy Minsky was in St. Louis when I first got there in the early 1990s, and so I did have the pleasure of meeting him and hanging out at some seminars with him…. Even in that brief interaction I learned a lot, and so it's a pleasure to be able to be here and to talk to you all today.

Sometimes it's said that when economists talk to each other, they agree about 10 percent of the time; but when they talk to the outside audience, they agree about 90 percent of the time. I think you're going to find that today. As it turns out, my talk is about 90 percent of Paul Krugman's talk, as you'll see—ironically, maybe. But I have a lot of the same concerns, and a lot of the same points—not all, as you'll see, but some of the same concerns, but all in different words, so you may not recognize it….

This is about containing risk in the new global financial landscape. I like this [phrase] *financial landscape*. I've heard it around the conference here. I think that's the way we should be talking about it. The main idea that I have is just to use my time to try to assess the state of the regulatory reform debate. I do think it's a muddled debate, as we're learning over the three days of this conference. No matter where you come from, I think there are just a lot of issues that are very difficult. I think Larry Summers called this "mind-numbingly complex," and he's smart, so it's really complex for the rest of us.

I'm going to talk a little bit about the origins of the crisis . . . , and I'm just going to ask two questions: Could the proposals that are on the table now have prevented the most recent financial crisis? And maybe the more important question, Would they prevent a future crisis…? When all of us are gone … and that new crisis comes along in different ways than this last one did, are we going to be able to prevent that? I'm going to have a lot to say about what's going to happen in that future crisis.

The main conclusions are that only a few of the things that are in the regulatory reform bills are likely to actually help prevent a future crisis. I think one element that I really want to stress in various ways here is that, as the nation's lender of last resort, the Fed will be at the center of managing any future crisis. Only the Fed can play the lender-of-last-resort role, and no matter what you do [in terms of] reorganizing the regulatory structure, that's what's going to happen in this future crisis, when none of us are here anymore and all new people are involved: everyone's going to run to the Fed…. So I think that that argues for the Fed playing a lead role in the regulatory structure, and I'm going to push that point as sharply as I can. My bottom line is that a Fed with an appropriately broad regulatory authority provides the nation with its best chance of avoiding a future crisis.

Let me give you one more theory about what the origins of this crisis are. It's not really new. It's the same one…, the original story that was told about this: I think that this crisis was fundamentally caused by a failure of financial engineering. The story's very simple. It works like this: there was a securitization boom, most of which started in the 1990s for prime mortgages, and then was later extended to other types, subprime. There was then a housing boom, followed by a dramatic decline in housing prices. . . . These securitized products did not take [into account] the possibility of a decline in housing prices…, because of a belief that … not all prices could go down at the same time across the whole USA—which is exactly what happened.

It could have been corrected. There's nothing inherently wrong about financial engineering or securitization; in fact, it should be a market-improving tool to get more credit to more people. But it was not…. A lot of assumptions have to be made about where the correlations are and where the risks are, and those assumptions were not right when these things were put together and priced. It turned out then that because they were not put together properly, the securitized paper was worth a lot less than most anticipated. It was held by financial entities all around the world, and not in small amounts—in very large amounts. We're talking about the U.S. mortgage market, a $14 trillion market, or about [the equivalent of U.S.] GDP.

Once this happened, the firms naturally clammed up, unwilling to say that they [had] exposure. One of the first things that happened was, every firm came out and said, "Yeah, I can see this is a problem, but we don't have any of this on our books. It must be the other guys." This created the panic, because now you don't know who's taking losses. You start to get worried that maybe *every*body's taking losses. And the panic was on. . . .

This picture [shows] the financial sector assets boom since the 1950s here in the United States *[see PowerPoint presentation]*. The black line … is nominal GDP. The white and various shades of blue are different types of financial sector assets. The ratio of the blue stuff to the black line in 1980 would have been maybe 1.25. By the time you got to 2008 or 2007, it was about 6. So there were a lot of changes in the financial sector. Everybody knows this. If you had shown pictures like this before the crisis, people would have said this had something to do with financial deepening, more sophisticated financial markets, financial innovation, and so on and so forth.

You also had a housing boom and bust. [This graph shows] housing prices and, again, nominal GDP. Nominal GDP is in red. The Case-Shiller National House Price Index is in blue. I've set both indexes to one in 2001, a recession year; I don't remember people talking about a housing bubble in 2001. If you don't like 2001 as a base year, you could do the same thing for 1990–91, also a recession year; you get a similar picture. So the prices obviously went up too fast, but they have now fallen below where a nominal GDP benchmark would be. That's why I've often said that I think the bubble component is out of housing prices, and I think [they] will stay at a low level for a while, but I don't think we'll see further declines. We'll see bouncing along the bottom till we get inventories and houses straightened out.

The panic produced runlike events—runs in the shadow banking sector, which is exactly what Paul Krugman was just talking about. These are institutions that do not take deposits and were not thought to be susceptible to a run. I've sat through dozens and dozens and dozens of papers, variations on Diamond-Dybvig [a 1983 paper modeling bank runs], and I never saw anyone do anything other than deposit-taking institutions. They're always much more concerned about … the information structure, or the sequential service constraint—all this stuff—instead of thinking about other types of institutions that we don't call banks but that are really shadow banks.

So the solution to bank runs is deposit insurance plus prudential regulation. A key thing is that reserve requirements are not enough to solve the bank run problem. You can't go to a deposit-taking institution and say, "Instead of holding 10 percent reserves against your deposits, you have to hold 20 percent"—that's not going to solve the bank run problem. The bank run problem is everybody goes to the bank all at once and they all want their money, and it's tied up in illiquid investments so they can't get it. So reserve requirements are not enough. It's the deposit insurance that solves the bank run problem because it removes the incentive of depositors to all run on the banks. They see no purpose in running on the banks since they're insured. This is the genius of deposit insurance, and that's why it has worked fairly well since it was instituted on a large scale in the United States during the 1930s.

There is no analog of deposit insurance for shadow banks. They're not deposit-taking institutions. A lot of the talk about the shadow banking sector, about how we're going to prevent future crises, is about capital requirements. I would regard that as the analog of reserve requirements for banks. This isn't going to solve the problem if everybody wants to go to one of these shadow banks and take out all their money all at once…, and I've not seen enough discussion of this. There's some at this conference, which I appreciate, but I don't see this issue being addressed in the financial reform packages that are being discussed. So I would conclude that the nation will remain susceptible to runs in the shadow banking sector even after financial market reform is eventually passed, unless we start to think about this problem and put some solution in place.

You can allow sudden failure. This crisis showed that large financial institutions worldwide were too big to fail. You can let them fail suddenly, but then you're going to get a global panic. I was actually one of those that advocated letting Lehman fail. I thought it would impose some more discipline on the market and force troubled players to seek partners. But that isn't what happened: we got global panic. This has to be taken seriously. This has to be taken seriously in any reform proposal, and I think there's a great tendency for people to say that we just don't want to bail these guys out, and therefore we're just going to vow that we're never going to do this again, and that that will solve the problem. But it's not credible that you're going to allow a global financial panic the next time this comes around. So what's going to happen the next time [it] come[s] around is that you're going to break the vow, and you're going to go ahead and bail these guys out. That's what happened this time. Vows like this are not credible; that's the message of Ron Feldman and Gary Stern in their book *Too Big to Fail.* It's like page one of the book. It's not credible to say that you'll allow failure of a very large firm—a sudden failure.

Sudden is a key word here. There's a life cycle of firms. A lot of firms rise and fall. If they fall slowly over time, that's not a big deal. That isn't the problem. The problem is, you get a call on Thursday, and they tell you they're planning to go to bankruptcy court Friday morning—what are you going to do? That's the problem. So it's the sudden failure that induces the global panic; that's really the thing you have to control, not the failure itself. The failure itself is sort of a normal evolution of business models that aren't working anymore and might have to be discarded. So the too-big-to-fail problem is a vexing one. It's much harder than just vowing that you won't bail the guys out the next time around.

Now I'm going to say more about what you've already heard, which is mostly shadow banking. But I've got some numbers for you, so let's look at these. This [chart shows] the large Standard & Poor's [index of] 500 financial firms as of the fourth quarter of 2007, so this is before the crisis really got going. A lot of people will date the crisis to August 9th and 10th of 2007, but this is before … the crisis really heated in the fall of 2008. So a lot of the firms have changed status, but this is their status as of the end of 2007.

The firm is … in the first column, total assets in the second column, percent of total assets in the S&P 500 financials in the third column, cumulative percent in the fourth column. By the time you get to the bottom of the fourth column…, you've got 60 percent of the financial sector assets in the [United States]…. The type of firm is … in the far right column: *BHC* is "bank holding company"; investment banks, like Goldman Sachs, Morgan Stanley, and Merrill Lynch, on this page; insurers, like AIG; the large GSEs, Fannie Mae and Freddie Mac, on this list; another bank at the bottom. I've got another page here: another investment bank; Lehman Brothers; insurance companies like MetLife, Hartford, and Prudential; the too-big thrifts, Washington Mutual and Countrywide; and more insurance and banks. So some of this is banks. By the time you get to the bottom of the second page, you're at about 80 percent of the assets in the financial sector according to the S&P 500. There are many other ways you could do this calculation, but I found this a good way to … assess the situation going in.

My comments on this chart are that, as the crisis started, 20 firms accounted for about 80 percent of the financial sector assets in the United States. About one-third of the total was in bank holding companies as the crisis got started. About two-thirds … was in nonbank financials, including government-sponsored enterprises like Fannie Mae and Freddie Mac, investment banks like Goldman Sachs and Lehman Brothers—Bear Stearns is not on this list; they're number 47—insurance companies like AIG and Prudential, thrifts like Countrywide and Washington Mutual. So my point is, a large fraction of the financial assets in the U.S.-based firms were not in the bank regulatory system—not under the regulatory authority of the Fed—as the crisis got started. And I'm understating the extent to which this is true, because these bank holding companies are only partly banks and partly a lot of other business. Citi, famously, [resulted from] the merger of Citicorp and Travelers, and 60–70 percent of its business is outside the United States; it does a lot of other things besides just being a bank. So when you say you've got a bank holding company, and there's a primary regulator—I'm going to talk about primary regulators in a minute—for the bank, that isn't really telling you the whole story about the firm. Anyway, let's just go with this: one-third in bank holding companies, two-thirds in nonbank financials.

One thing that I think maybe hasn't been emphasized enough is that all firms were affected by this crisis. First of all,… the nonbank financials in the table are a damn Who's Who of the problem institutions in this crisis. . . . . But all of these firms faced severe stress during the crisis, regardless of the type of firm and regardless of the nature of the regulation; that's really true globally as well. There are a few pockets where they got away unscathed; but basically, this crisis affected a lot of different types of firms, and a lot of different places around the world, and a lot of different industries inside the United States. That suggests to me that it wasn't a matter of the regulatory structure…, because you've got different regulatory structures for different industries and for different countries, and it didn't seem to matter: they all got into trouble. All were taken in by the allure of securitized products in various ways, so I don't think you should feel like, if we just change our regulatory structure around a little bit, that we're really going to fix this problem or be able to prevent this crisis from occurring in the future. So the shock was to the entire global industry, not so much to particular firms.

Sometimes people talk a lot about domino theories when they're talking about this crisis, so here's what you do: you set your dominoes up on the table, and you've got them all lined up, and you're just about to tip the first domino to test out your theory, and then somebody throws a big basketball and knocks all the dominoes over. That's what happened. This was a global shock to the whole industry; it wasn't a matter of just one firm tripping the whole crisis….

John Cassidy, I thought, made a really good comment about [how] you've got the entire financial services industry pursuing the same strategy in the last decade. How do you prevent that? The problem is, everybody's doing the same thing. You would like more heterogeneity, different strategies, out there, so that if one strategy turns out to fail, you've still got survivor firms that can provide intermediation services. But that isn't quite what happened. I think Chuck Prince famously said, "I just couldn't not do it because I would have been viewed as out of step with the markets and I would have been fired." As it turned out, he got fired anyway—he was damned if he did and damned if he didn't. So I don't really see this being addressed, either.

So, the financial landscape, this new phrase that I like—or newer, as a lot of you probably used it in the past—the crisis encompassed a far larger segment than just commercial banking. A lot of the talk about regulatory reform is too bank-centric, and the real problem is this far larger financial landscape. Many nonbank financial firms were at the heart of the crisis. I'm sort of preaching to the converted here, but I want to emphasize that these firms were not regulated by the Fed. I'm concerned about this issue [of] creating a Wall Street–only Fed, so let me just talk about that for a minute, and then I'll talk more about the broad Fed role after that.

We've also got community banks in the United States. There are 8,000-plus of them. Regulation actually works pretty well for those institutions. You've got deposit insurance plus prudential regulation, which is there to prevent the banker from taking advantage of the deposit insurance. The system is under stress right now, and there are a lot of failures. This is a very serious recession, one of the worst we've experienced in the postwar era. It's kind of close to '81–'82, depending how you measure it. But the system that we have in place is capitalism at work. We allow failure: if the banker is going to go out and make a lot of loans that aren't going to pan out, then that bank is going to be put out of business. But the system works well in the sense that it prevents the bank runs and the associated panic that we experienced in 1930 and '31, where a bank would fail in one town, this would make the people in the next town nervous, they'd go run on their bank, and then you get this string of bank failures that many say really brought the Depression on full force. So the small bank regulation system, I think, works pretty well. They didn't cause the crisis, and you don't want to have a regulatory reform bill that goes out and puts more regulation on those guys when the problem is really in the shadow banking area.

Some regulatory proposals have this kind of view of the Fed, it's going to be a Wall Street–only Fed, just the very largest institutions in the United States and mostly bank holding companies. But I think the Fed should be involved with community bank regulation so it has a better view of this entire financial landscape, and that going forward the Fed doesn't become biased, or even more biased, than many people think we already are toward the very largest financial institutions, mostly here in New York City. I think one role of regulation is that you want to provide this level, competitive playing field. I don't know how the banking industry is going to evolve going forward, but you want this level, competitive playing field, and you let the markets decide what the best technologies for providing those intermediation services [are]. You wouldn't want to start to bias that toward the very largest institutions. Also, community banks tend to fund smaller businesses—that's a key source of job growth for the economy. An important input for the Fed in making monetary policy [is] to try to understand that process. These very big financial firms are doing a lot of other things. They've got a lot of their business outside the United States, a lot of merger activity, advising—Goldman, famously, is advising the Greek government—and other types of things that are sort of a long way from … Main Street job creation in the U.S. economy. So I'd be concerned about creating this Wall Street–only Fed, and for that reason I think you should keep the Fed in community bank regulation. But it's not only community bank regulation; I actually think the Fed should be involved in a broad regulatory role.

My main theme in this set of slides is to say that coming into the crisis the Fed had a limited view of this financial landscape, only the part that [it] had supervisory authority over—I'm going to talk more about that—and that made it harder for the Fed to perform the lender-of-last-resort role, which is the critical role in a financial crisis. What did you see because of this? You saw a lot of ad hoc decision making because of this. What's going to happen in this future crisis…? I know one thing that's going to happen: the Fed will again play this lender-of-last-resort role in this next crisis. And I say, that will go a lot more smoothly if the Fed has this broad regulatory role, so they understand all these different types of firms from the inside…. Then, when it comes time to play this lender-of-last-resort role, it will be able to … play it effectively, more effectively than we did this time, because we had to make a lot of ad hoc decisions this time around.

Let me just flesh this out in the next four slides. The U.S. system for banks … is a primary regulator system. What that means is that the primary regulator has the key authority for the regulation of the bank…. Before the crisis—say, January 2007—the Fed had primary regulatory responsibility for about 12 percent of all the banks, and about 14 percent if you go by assets. The remaining 85 percent … [had non-Fed] primary regulators. So we had only a fraction of the banking system—that's one part. But these nonbank financial firms, which are the most troublesome entities in the crisis—the Fed had no supervisory authority over these guys. So these are the investment banks—Goldman and Bear; insurance companies—Prudential, AIG; financial hybrids—GE Capital, GMAC. This is all before the crisis. [The Fed] didn't have any regulatory authority over those. So … the Fed had access to limited information coming into the crisis, primary regulatory authority for only some of the banks, and none for the nonbank financials. Due to this narrow regulatory authority, the Fed had a severely limited view of the financial landscape as the crisis began.

Of course, you can observe the firm as an outsider. You can say, "I know that MetLife is over here, a block away, and I know a little bit, I read newspaper articles and things like that," and there are analysts that follow the company, and you can read their reports. But that's very different from having some guys inside the firm that understand what's going on with the firm *from the inside.* That's the kind of information I'm talking about. That's what I mean by a limited view of this financial landscape as the crisis began.

Now the crisis unfolds. All eyes turn to the Fed as the lender of last resort. Only the Fed can play this role because the central bank has the printing press—that's the whole purpose of the central bank, to guard the printing press. This … always happens in a crisis and *will* happen in the future crisis, but we have detailed knowledge of only part of the financial landscape because of the limited supervisory authority, especially these nonbank financials. We don't know too much about those, and many of the critical lending decisions involve these nonbank financials—Bear Stearns is a good example.

What should the reform response be in this situation? I think the clear lesson is that the Fed had insufficient access to information about the financial landscape. I don't think the Fed or anyone else clearly understood the potential for feedback between the financial sector and the rest of the economy. I've worked on that a lot during my research career. It's a difficult topic, and there is a literature on it; but it's tough going, I'll have to tell you. So I think a lot of people felt like the feedback wouldn't be that strong. That turned out to be completely wrong during this crisis. Again, the Fed will be at the center of a future crisis, so we should be well informed about the entire financial landscape, and the reform response should be to provide the Fed with an appropriately broad regulatory authority.

In this last section of slides I want to talk about some of the proposals in the broad terms that are on the table and how they fit into what I said earlier. First, on systemic risk: the House bill creates an interagency Financial Services Oversight Council to monitor systemic risks posed to the financial system. There are details about exactly how that would work. Would the Federal Reserve serve as an agent to the council? Would the Federal Reserve really be the systemic risk regulator, or would it be the Council? I think those things are being hashed out now.

The question is, would this council … prevent a future crisis? I think the evidence on that is far from clear. It doesn't seem likely that this council … would have advocated aggressive action to control systemic risk had it existed in the past—say, in the 1990s or in the past decade—with the people that you're saying would have been on this council…. I think it would have been difficult for a council like this to come to an agreement on specific risks that were out there and on associated action. The key thing is an associated action when times are good. The role of the council would be to take away the punch bowl as the party gets started. You see the housing bubble developing, you see that this might cause problems for securitized product; then the council would have to take aggressive action at that point—at the point where everyone's making a lot of money and the economy's doing very well.

I don't think the council is going to take decisions like that, and I don't think they would have in the past. That kind of decision, if that's what we want out of regulatory reform, strikes me as a better one to put at the Fed, because that's the kind of thing the Fed has to do. You have to raise rates, in particular, just when the party gets started. That's a controversial decision, so that's why you delegate out to quasi-indpendent institution like the Fed for that kind of a decision. So that's a comment on systemic risk.

About the resolution regime: in the House bill, the FDIC is granted expanded authority to put systemically important firms into receivership. Other debate has suggested a special bankruptcy court. Would this prevent a future crisis? Here, I'm a little more optimistic. I say it might. The chairman has advocated a lot for this, and I think … the core idea is right. This reform goes in the direction of strengthening market incentives. A resolution regime is a way of putting market discipline on very large financial firms. We really could allow failure without creating a panic—that's what you want to be able to do. You want to have somewhere that you can take your Lehman Brothers and you can put them and dismantle them slowly over time. In a way, that's what we're doing with AIG. You want something like that, something like what you have for the very smallest banks. When they fail, the FDIC comes in, closes the institution down on a Friday, and often opens back up on a Monday under a different name. We know how to do that. That works very well. It's a way of closing down a financial institution without creating a panic. You want something like that for these larger institutions. And then firms, knowing that they would fail or that they could fail, would not take the excessive risks and not be able to borrow at low rates, which is one of the big problems that we have with these too-big-to-fail firms.

However, there are some key concerns about this, and one is the one due to Ron Feldman and Gary Stern: how credible is such a regime? You could write down in the law that you're going to use this resolution facility, but in the midst of a panic, the government might come in and intervene after all. If that's really what's going to happen, then the whole exercise is useless. You won't get any of the market discipline that you're looking for out of this process. I would put "funeral plans "in the same category. The firm draws up a plan and says, "If we need to shut down, here's how we're going to do it." Then you put it over on the shelf. When the crisis actually hits, are you actually going to take that plan off the shelf and implement it word for word? I don't think so. I don't think that's a credible way to go about it. If that is not going to happen, then you're not getting any of the market discipline that's supposed to be coming from this kind of idea, and it's not helping at all.

Another key concern—I don't have time to go into it here—is that you're talking about large global enterprises. Citibank is a large global enterprise. How much global cooperation can you really get … when it's time to resolve these firms?

How about restrictions on 13(3) lending? 13(3) is the special provision in the Federal Reserve Act from the amended version in the 1930s that says that the Fed can lend to whoever they deem is appropriate if they can get enough votes on the Board of Governors ,and if it's an unusual and exigent circumstance. We used this section extensively [during] this crisis, to great success, actually. The idea would be to put significant restrictions on this kind of lending in the future. The question is, would this prevent a future crisis? I don't think so. This would probably *exacerbate* a future crisis. Again, a future crisis is one you can't imagine today exactly what form it's going to take or what the situation is going to be. A future Fed may be hamstrung and forced to let the crisis roll on because I can't get the authority to lend to anybody outside the banking system. So I'm worried about these restrictions on 13(3) lending. I do think there should be checks and balances there, but if you overdo it, you might hamstring a future Fed.

How about consumer protection? The House bill creates a separate consumer financial protection agency (CFPA). This has been very controversial in the Congress. There's been a lot of debate about where to put this agency. I am concerned about putting this agency in the Fed but not giving the Fed any authority to direct anything about the agency—you'd be putting an independent bureau that does not report to the chairman and the Board of Governors inside the Fed and funded by the Fed. I don't like that. That's … putting Fed credibility on the bureau without allowing the Board of Governors to oversee the bureau. So I don't like that feature.

I think a fair playing field is desirable in all consumer products. I think Chicago-style economics will tell you that—that you do want … the competition to occur on this level playing field. But I don't think that this would … have prevented the past crisis. The housing boom that we saw was a classic gold rush. Most people bought the houses because they thought the prices would keep rising. You buy it with no money down today, you don't put up anything, you wait for a year, the price has gone up 25 percent, you pocket the money. So this is a gold rush thing. It's a macroeconomic phenomenon, and I don't think any rules that you would have about consumer products would get rid of the gold rush mentality. People thought that prices were going to continue to go up; that's why they bought the houses. So I don't think a CFPA would change that. I *do* think you should have a level playing field for consumer products.

How about sins of omission? GSE reform is not in the current legislative proposals. It's an outrage. It is an outrage. Fannie Mae and Freddie Mac were at the center of this crisis, and we should be thinking about how to reform those guys today. We've got a very damaged mortgage market in the United States. We should be working a lot harder on this issue.

So let me just conclude: the Fed is the nation's lender of last resort. We're going to be at the center of managing any future crisis. This argues, I think, for the Fed playing a lead role in the new regulatory structure. If we had an appropriately broad regulatory authority, you'd have the best chance of avoiding or mitigating a future crisis, because what's going to happen in that future crisis is you're going to want the central bank to play this lender-of-last-resort-role over again. I hate to be pessimistic, but I think only a few of the current financial regulatory reform proposals that are on the table are likely to help prevent a future crisis.

Thanks very much. I'd be happy to take questions.

Q&A

Q: This is, I think, about the fourth talk we've heard from a Fed official, and it strikes me that the political dynamics are actually somewhat different. You see that your situation is being potentially eroded by the financial reform; but I think that the reason for that is not because they're thinking about what is financial reform going to look like, but because, in fact, the Federal Reserve, in a number of its policies, [was] a great enabler of the current crisis. You're saying, well, the CFPA won't do anything about it, this is just a gold rush, we didn't know anything about it. But it would [have been] plain if you'd looked hard at the kind of stuff that was being produced, and securitized, and passed up the chain that this was not simply a gold rush; this was a gold rush that basically had people making money all along the chain, and so it was pushed. I think the Fed had a large role in this, and so it's not surprising that there'd be a political reaction against the Fed, even if maybe they did [do] a fairly decent job with the bailout. But I think that up to the crisis, the Fed certainly has something on its hands beyond … well, we're the lender of last resort—we don't have to come in. We're the firemen; we just come in when the fire starts. But if we put gas on it, it's not our fault.

JB: You do want this level playing field in consumer products, and I don't have any problem with that. You're saying the problem was that a lot of snake oil was being sold.

Q: The problem was all the way up the chain. The snake oil was initially sold by the banks….

JB: There's an economics of that, which is [what George] Akerlof [wrote about in "The Market for 'Lemons'"]. Say I go to a used car salesman. He's selling me this car, but he knows something about the car that I don't know. So in the economics of it, that actually depresses the amount of sales that go on in that market, because the buyer is sitting there saying, "I'm not sure what this guy's selling me…." Usually what we say is that if there are information problems in markets, that's going to depress the [number] of transactions that go on because people don't trust each other…. Chicago economics would tell you no, there [should] be perfect information on the market. Everybody [should] understand exactly what they're buying so that you get the maximum transactions and maximum utilities. That's why I say that that part is not the cause of the crisis. The cause is, … everybody thought the prices were going to go up, and they—including the Fed—were going to find a way to buy those houses, to get in on that big windfall, as they perceived them.

The other part, the part that really worries me as an economist about that transaction … you're saying it goes all the way up the food chain, which I would agree. I could sell you guys a bunch of bad mortgages, package'em up, and then turn around [and sell them to the next guy]. But what I say is, I should not be able to turn around and sell 'em to the next guy. Because anybody can put together a schlocky product, right? But the ability to turn around and sell it to the next guy in the food chain, those guys are supposed to be your sophisticated investors, who are supposed to know better. But you're putting the triple-A stamp on it, and you're saying it's all okay, and they [buy] the whole thing, trillions of dollars' worth—

that's the part that I'm worried about, because those people are supposed to be sophisticated, and that [part of the system] really broke down completely. As an economist, that's where I'm really the most worried, that we didn't have enough market discipline….

Q: A number, if not most, of the systemically important institutions operate internationally or globally…. [Can] a domestic resolution process for one of these large institutions [function] if there isn't some sort of similar, or harmonized, or cooperative aspect to arrangements in other countries? Can you actually start a resolution in the United States without a resolution process elsewhere?

JB: … It's very much [an] open question. There is a lot of work going on across borders to try to get at that problem. But what we do know about international cooperation and international agreements is that it's very painful; it's very slow moving. The only hope would be that this crisis has been severe enough to try to push that harder…. Europe has worked for a long time to try to harmonize financial structure across countries, and, of course, it's a very slow process. All I can say is, we can work on it, and I hope to get it as good as we can. But I think it's a big question…. The notion is, you put the resolution regime in place, and that enforces discipline on somebody like Lehman Brothers; but if it's not credible and it can't be implemented across borders, then I think that argument starts to break down.

Q: There've been some observations about the Fed being asleep at the switch while this crisis was evolving. But my question goes way back, [to] the evolution of the financial services industry.… The Fed's role is to promote economic stability, and it has been ever since [its] inception. My question is, hasn't the Fed been asleep at the switch for maintaining economic stability in this country for about 50 years, and that 's the cause of the overall crisis?

JB: I'm a little amused by this "There was never any crisis before this crisis." Did we forget LTCM [Long-Term Capital Management]? Did we forget the S&L crisis? Did we forget Enron? … The Russian default? It's not like it's been smooth sailing. The stock market crash of 1987—how about that one? It's not like there haven't been crises in the past. You're right that the Fed has been charged with stability; but it certainly looked like, coming into this crisis, that a lot of right calls had been made over all these past episodes. That was certainly the narrative about it. So I don't think it was that clear that the Fed had just abandoned its stability mandate to the extent that it was there in the original Federal Reserve Act, and it seemed to be working quite well coming into this crisis. I think we really got hit hard in this episode, though.

Q: The Fed, though interest rates went down and, arguably, were held down too long, could have helped cause the crisis. [Rates] were brought back up in a very careful and predictable manner, back to what might have been called "normal" levels; and yet that didn't seem to solve the problem. Alan Greenspan was quoted as saying, "When I raised the short-term rates, I thought the longer-term rates would go up as well." [When they did not,] that put the financial industry in a bind…. The Fed tried what looked like a very prudent policy there in the mid-2000s, and we're now back to a low-interest-rate policy. What could be a game plan going forward for raising rates again, in … a prudent way? It didn't work the first time.

JB: This is the argument—that we were too low for too long in the earlier part of this decade, and that that fed into this crisis. I think it was a contributing factor; I don't think it was a lead factor. I've been in the Fed for 20 years, so I've lived through two major tightenings. One was [in]1994. A lot of you will remember that one as being very disorderly, one of the worst years ever for the bond market, with the Fed and the bond market out of synch…. The Fed raised rates pretty rapidly. But the … rest of the '90s experience was actually pretty good, so from that point of view—from the market disruption viewpoint—that tightening was viewed as disorderly; but from the point of view of the economy, it actually performed pretty well in the second half of the '90s.

The other major tightening was in the 2004–06 period. There, we raised the Fed funds rate one-quarter basis point at every single meeting—that's 16 meetings in a row—for two years. That was, in retrospect, too mechanical. I don't think there was any theory that said that was the right pace at which to raise rates. I think it should have been more state dependent; that is, more dependent on how the economy's performing, instead of just saying we're going to do this on a calendar basis.

So you have one disorderly tightening from the '90s, and you have one orderly tightening from the 2000s. Maybe we can do something in between, and this time, we'll get it just right.

Q: As the lender of last resort and presumably a sophisticated investor, the Fed just last month finished buying 1.25 trillion dollars' worth of residential mortgage-backed securities. I have a four-part question: What due diligence did you do when you bought that $1.25 trillion? What's in those residential mortgage-backed securities? Who got bailed out? And what risks have the taxpayers been exposed to?

JB: … The Fed announced in the beginning of late 2008, and started in the first part of 2009, to embark on a program of purchasing $1.25 trillion in mortgage-backed securities that just ended in March—I think a lot of you know this. We also had other parts to our asset purchase program: longer-dated Treasuries of about $300 billion, and agency debt, which ended up at about $170 billion. These were all issued by Fannie Mae and Freddie Mac, and are in turn backed by the U.S. Treasury. They're the highest quality in the mortgage-backed world, … so this is not a matter of taking a lot of toxic assets onto the balance sheet.

I think the program's generally been regarded as successful. If you look at spreads between mortgage rates and U.S. Treasuries, they narrowed substantially from where they were in late 2008 and 2009. Depending on how you look at it, it's maybe 125 basis points to 150 basis points. I would consider that prima facie evidence that this worked fairly well.

Also, I think you might call this quantitative easing. You might recall that the Fed hit zero nominal interest rates in December of 2008, and then the question was, Is the Fed out of ammunition? Can the Fed not do anything now to support recovery…? The answer to that is no, you can pursue a quantitative easing policy. This is one approach that has been very successful, I think, in helping the economy stabilize and recover. Now we're in the recovery stage. It's not a superstrong recovery, but it's a very reasonable recovery. I think we're going to get faster GDP growth here in the second quarter than we had in the first quarter. By the time we get numbers in on the current quarter, that will be a full year of GDP growth. So the Fed was able to support the economy and support the recovery even after nominal interest rates hit zero. I think that's an important lesson from this crisis.

But on the question of are we taking any risk, I don't think we're taking any risk onto the balance sheet from that. The only question would be some interest rate risk that might be out there, but not credit risk.

Q: Should the systemic regulator have in its mission statement, and basically its philosophy, that it believes in Minsky's idea that dangers build in financial markets during tranquil periods, and if so, how does the systemic regulator observe that?

JB: You want to put Minsky into the legislation? *[Laughter.]* I think Minsky … had a lot of success in getting that view widely disseminated, and I think most people in their heart believe that things like that are going on. This is why I was commenting on taking away the punch bowl when times are good, because … that is the key issue for how you think you might be able to control systemic risk going forward.

A lot of people feel [that] no one knew about the housing bubble, or something like that. I feel like shaking them. I say, No, if you were hanging around in the earlier part of this decade and you picked up a copy of the *Economist,* like I did, [there were] graphs on the cover telling you there was a huge housing bubble in the United States. So it wasn't a matter of the warnings not being out there, or that no one saw that these prices were going up faster than incomes were going up in the various areas—lots of stories were told about it. There was testimony about it. Greenspan at the time testified about it and talked about the issues. So I don't think the problem was really identification. The problem [was and] is, are you actually going to take action when times are good, and when everybody's making a lot of money? Are you actually going to take action to shut down something like the housing bubble? I think that is a very difficult thing. It's Pollyannaish to say that you're going to have a [financial oversight] council, and this council's going to put the kibosh on this kind of thing the next time around.... Is that what you want in financial market reform going forward? Again, none of us will be here in the next crisis, so I'm not just talking about myself. You want a quasi-independent institution like the Fed to be making a decision like that, because it's going to be a difficult one to make….

Q: It was not only the housing bubble but also the way it was financed. There were two instruments that were discovered that escaped supervision: credit default swaps, which were manufactured by AIG, and collateral debt obligations. Both were able to shift risk…. They do not get exchanged in open markets; they are traded in shadow pools. What are you going to do, because there are always going to be smart guys on Wall Street. If these [instruments] are outlawed, they'll invent something else. What will you do about them? …

JB: The CDS market is an unregulated global insurance market. I've never seen anything that says you should just leave your insurance market unregulated. Yes, you should get some … regulation on CDSs. And this business about being able to bet without an insurable interest, which is what's happening in the CDS market, that's a classic insurance problem. That's why you want to have some regulation of that market. But how are we going to get that? It's a global market, and I'm not seeing a lot of talk in regulatory reform proposals that get to the point that there's an unregulated global insurance market. What the legislation does address is the transparency question. They're trying to get it onto exchanges. There are issues there as well, but not too many people say—and I certainly would not say—that you should leave insurance markets unregulated. So I'd be all for getting some kind of regulation on that….

Q: I take your skepticism about a council of systemic risk regulators; but looking at your chart [of the top 20 U.S. financial firms], I think you mounted a good defense in saying that most of these assets weren't under Fed supervision leading up to the crisis. But the top one was, and that was Citigroup.... Why shouldn't Congress come back and say, "Well, you didn't have [supervision over] all of these guys, but you [did over] Citigroup. Tell us what you did there and why you're the right entity to be the systemic risk regulator going forward on the basis of that performance."

JB: I guess what I can say is, Citigroup is in the second district, not the eighth district *[laughter]*. I'll say what I really think…. As a nation, we have really felt that Citigroup was too big to fail for a long time. I think in the '80s, '90s, and again in this decade, they've been in trouble, and I think implicitly the idea was that they couldn't possibly fail—that you had to do things that were going to allow them to continue. I think this crisis is really causing a lot of soul searching about whether that's really what you want to do—about how fair that is. It's a huge conglomerate; is it really even manageable by the people involved? … Nobody probably used the words … "too big to fail"—except for Gary Stern, who did warn about this—but most people just kind of implicitly took it that you couldn't possibly allow them to fail….

PAUL A. VOLCKER JR.

Economic Recovery Advisory Board

Dimitri, you made a couple of comments in introducing me that I want to perhaps modify or correct. You said I was undersecretary for international affairs. I want to take this as a little lecture as to the state of the U.S. government at this point. I was in those days undersecretary for *monetary* affairs. Monetary affairs covered both international and domestic.

I make this point because in those days there was a secretary of the treasury and there were two undersecretaries—my position, and a kind of administrative undersecretary. Today, there is a secretary of the treasury; after some delay, there's now a deputy secretary of the treasury. There are about five undersecretaries—except the positions are not filled. Until a week or so ago, there was no undersecretary for international affairs, and there was no undersecretary for domestic finance, which covered kind of the range that I had at the time. I just ask you what that says about the functioning of the United States government, that 15 or 16 months after inauguration day, in the midst of what you cite as the world's greatest economic crisis, the United States government hasn't gotten around to filling the two critical positions in the United States Treasury that are supposed to be dealing with international finance and domestic finance. There is something the matter in Washington—maybe a few other places, too—but I think this is really illustrative of a problem.

Now, you say that I was a towering figure. In one sense—it depends upon whether you're in the NBA or not as to whether I'm still towering, but I understand the physical thing. But I have another distinction: I knew Hy Minsky. How many other people in this room can say they knew Hy Minsky 30 years ago? Well, there are a few, 30 years ago. Now, I must confess, I'm not sure I ever met the man—in my *mind* I met the man. But I did know him in the sense that I became very familiar with his writings in the early 1980s, and you know his wonderful, didactic, persuasive approach as to the inevitability of financial crises, and it was all very convincing. But what frustrated me is, I'd say, "Hy, I know this is a beautiful analysis, but I am now the chairman of the Federal Reserve Board—what do I *do* about it? I don't want to see a repetition of all these crises." I never got a very good answer to that question, if you want to know the truth. I suppose this conference in some sense is still trying to develop some answers to my question then, and deal with the implications of the really brilliant Minsky analysis.

I think you've got me for an hour in this program. There's a limit to what I could write on the bus coming here, so I won't take an hour.*[laughter]*. But I do want to set this in some kind of perspective if I can.

I think we are now faced with that question that Hy couldn't answer for me 30 years ago; let's see whether we can find an answer. But what's the setting here? We know that this great crisis followed, not just in the United States but elsewhere, an enormous explosion—I won't call it flowering—of finance, reflected in an enormous attraction for many of the brightest young people coming out of our best colleges and universities to work on Wall Street, with enormous rewards and bonuses, and enormous rewards and profitability for the businesses. At one point, for several years—the number varies a little bit depending upon which index you look at—the world of finance was getting 35 to 40 percent of all the profits in the United States. And on Wall Street, I guess they think that's justifiable. But for most of us, you begin wondering whether the contribution of finance to the welfare of the economy and the welfare of the country really is more than a third of the total.

Now, you look a little bit more closely at this and try to figure out what's going on, and what you see is that while we had this enormous explosion in financial employment, in earnings income—an enormous explosion—the average working person in the United States had no increase in real income over the past 10 or 12 years, and you wonder how long that kind of dichotomy can go on. It's contrary to what we all learned in economics—that rising productivity filters down to the average working man, and that's where real incomes come from…. Well, that hasn't worked in the 21st century. Maybe it will work eventually, but it's been pretty slow to come about, and it raises some questions in one's mind as to what contribution this great efflorescence of finance has contributed to the American economy and the world economy. You look at obvious indicators of the growth in the economy and the growth in productivity—nothing special was going on. It didn't look particularly good against past history. It didn't look at all good against the 1950s and 1960s, before we even heard of financial engineering. So it raises a few questions.

I'm going to get out of my depth in a hurry, but I want to stimulate a little thinking. You go back and look at the figures for value added. I don't think I've looked at them since I was in graduate school, but I went back and looked at them, and what do you find? There are varying definitions of financial industry, but if you pick out the one or two items that are most closely associated broadly with Wall Street, you find out that in nominal terms the contribution of finance to the GDP went up 50 percent or so in the past 10 or 15 years.

Then somebody asked me, "Are you interested in nominal GDP or are you interested in real GDP?" I go, "Well, let me look at the real." I don't know how they calculate the real, but it showed no increase, or virtually no increase, in the contribution of finance to GDP during this period. Just for contrast, I looked at manufacturing industry, which hadn't been doing very well, and it was kind of the opposite: the nominal contribution of manufacturing to GDP went down about 50 percent during this period, and … the real contribution of manufacturing to GDP held pretty steady at 20 percent. So we have this strange phenomenon where finance, richly rewarded (again, I don't know how they calculate this), made no net contribution to the value added in real terms, [while] manufacturing, not well rewarded at all—certainly not the working man—maintained a contribution to GDP while employment and incomes were substantially declining.

So what's going on here? I was struck the other day—and I really recommend it to you—by a lecture by Lord Adair Turner, who is now the head of the Financial Services Authority in London. I don't know him very well, but he's a brilliant writer and analyst, and it's almost like he's writing a novel, the way he writes about finance. He came out with a long lecture the other day reexamining a proposition that he'd made in somewhat offhand terms six or eight months ago, when he commented that he failed to see the social utility in what was going on in the world of finance in the previous decade or so. He said he got a lot of criticism about that. That's when he raised the question of a Tobin tax, which nobody much liked, but he got a lot of understandable flak from members of the financial community.

So the burden of this lecture is, he went back and said, "I really shouldn't have said *social utility*—who knows about that? Let's examine what the *economic utility* is of what's been going on in the world of finance in the past 10 years." And it's really a very careful sector-by-sector kind of analysis of what's going on with credit default swaps, what's going on with liquidity, what's going on with various aspects of financial engineering. It may be fair to say he started out with a somewhat skeptical view, but he arrives at a conclusion that I think a number of other academics are finally beginning to arrive at: that it's very hard to see that there was any very great contribution to the net sum of human economic welfare from this great explosion of financial activity in the past 10 years. And he draws some conclusions from that in terms of possible reform avenues. He's in favor of a rather comprehensive view, using many different avenues for reform; but in general, the overall philosophy is, *Be conservative*—to be conservative in the context of what he was writing. Don't be concerned about measures that may reduce the liquidity of the markets, that may reduce some of the sophistication of markets, because it's not very clear that they contributed anything to welfare in any event.

So that is one way of looking at things. And he's not alone these days. Maybe it's partly that every generation of economists has to refute what the previous generation said, and so the previous generation was all hot on the perfection of markets, and the present generation will describe how it didn't quite work out that way. But I think there is a healthy skepticism about what was going on.

What conclusions do we draw from that? I don't want to go into great detail. I think the deal here was to have a little open discussion, rather than hearing me talking for an hour. But I do think there are some conclusions to be drawn, and a lot of that—not all of it, but a lot of it—turns around this very basic question of "too big to fail" that everybody's been worried about—including me.

So what do we do about it? How do we deal with this core problem of financial regulation—which is not new. The phrase "too big to fail" has been around for quite a while—I rescued a bank or two myself in my day—but there's been a real change in magnitude, particularly when the rescues went beyond the commercial banking system, mostly. Well, I don't know whether *mostly*; there was a lot of rescuing commercial banks, but there was even more intense effort to rescue investment banks, insurance companies, interestingly enough, so forth and so on—you know the story—trillions of dollars being involved.

How do we draw a line? How do we react to this situation where "too big to fail," which used to be confined to fairly isolated instances in the commercial banking world, gets generalized to the extent it has been generalized?

My philosophy in approaching this question is that there is a distinction between commercial banks and other financial institutions. Why do I make that distinction? Partly, maybe it's pragmatic. It's pragmatic because commercial banks have been protected—protected for decades in the United States, protected in other countries. They have access to the so-called safety net. They can borrow from the Federal Reserve. They can deal with their liquidity problems. They have deposit insurance; they get friendly advice now and again from their regulators. And, they have regulators that have the authority to regulate very intensively. That's not an accident. This has been true all over the world for decades, because there is a perception that commercial bank stability is essential to the operation of financial markets.

Now, it may account for a smaller proportion of finance in the United States than it used to, but it's still got critical functions. Nobody else runs the payment system, whether it's going to your neighborhood bank (or your neighborhood teller machine) or whether it's sending complicated payments all over the world on several seconds' notice. It's an essential function in a global economy. Who else is lending to small businesses and medium-size businesses? Who else is backing up the commercial paper market? Who else is providing a depositary that people have some conviction about and its liquidity and availability are par? That was quite evident during this past crisis: you did not get a run, by and large, on commercial bank deposits. It is an essential—*essential*—element of stability in the financial system, to say nothing about the fact that commercial banks are the central vehicles through which monetary policy operates.

So I don't make any excuses for saying that central banks are a special institution. It's not a moral issue. They have a compelling need for substantial government protection on the one side, and very substantial government intrusion and regulation on the other side. What's the implication of that? The implication to me is that commercial banks should be paying attention to their knitting, paying attention to these essential functions, and not be out running a casino on the side—a casino protected by government support. Because that is very meaningful in terms of its availability of finance, the rates at which they pay for their liabilities, and all the rest. And there's a great big market out there elsewhere—what's left of the commercial banks, hedge funds, equity funds—ready, willing, and able to trade. They love it. It's fine—let 'em go. But if they fail, *they should fail.* They should know that they're not going to get the protection of the official safety net. That is a crucial point to be made—either a strong point, I suppose, or a weak point, depending upon how you look at it. But to make that view credible, you've got to answer the question of what happens when they do fail, particularly those institutions—and there are very few nonbank institutions, in my view, that are truly of systemic importance—[that are "too big to fail"]

That's where this idea of a special resolution authority comes in. You get a new agency, or you get an existing agency—in the Dodd bill, it's the FDIC—that can step in, take over that failing institution in a matter of hours or days or a weekend, take control of the institution, satisfy any immediate liquidity problem that may exist—it would have to have access to some money—but essentially take it over for the purposes of burying it, providing, technically, a liquidation. Let me call it a decent burial; but it will be a burial. Or it might be a breakup. You might chop off an arm and a leg and sell it to somebody; maybe you can use some of the organs to support some other institution, as we do in the medical field. But basically, that institution will disappear. Stockholders will be gone; its management will be gone; its creditors will be at risk to the extent that the assets of the institution and the marketplace are not worth their liabilities; and the government will be protected if it had to provide any money at all.

So that is the distinction. Can it be made credible? Well, my simple notion is, if we want to get back to this thing that's been called the Volcker Rule, much to my surprise, I want to maintain that distinction between commercial banks and other financial institutions. To maintain that distinction, I can't have commercial banks able to do the same thing that these other institutions are doing, and I particularly don't want those other institutions to have a commercial banking license, and therefore by implication be supported by the whole panoply of government potential and actual support. That's what this is all about, and that's the heart of the matter so far as I am concerned, and the so-called Volcker Rule business.

There are other obviously important elements of financial reform. It seems the one most bitterly fought in Washington at the moment is what to do about derivatives; particularly, credit default swaps. The proposal is rather uniform, I think, among most analysts that these derivatives, at least, ought to be brought into a more formal resolution process, a more formal settlement process, either through a clearinghouse or through trading rules on an exchange, and that will at least deal with some of the problems that arose with Bear Stearns, Lehman, and so forth—the issue of interconnectedness bringing down the whole financial system, or major parts of the financial system. I do think that is a very crucial element in reform, and it very much is in question to the extent that the financial community and those participating in these areas are pushing back against what seems to be reasonable protection against the next crisis and its effects. You need not go much further than AIG to illustrate the importance of a presumably stable, very large insurance company getting engaged in trading activity with derivatives and bringing down the whole company, and going a long ways toward bringing down the whole system. There should have been some better way of dealing with that problem more expeditiously.

Let me say, there's an intangible here that—I'll use the name; you've said it in public—John Reed, the former chairman of Citibank, who was a very aggressive banker in his day and involved in expanding the activities of Citibank, has now become very articulate in describing, apart from the specifics that I talked about, what is a destructive cultural fact: that if you combine … traditional commercial banking functions … with trading and proprietary functions—which traditionally get paid at a multiple, among other things, of what commercial banks get paid at—it sets up a kind of contest in the whole institution, between the traditional values of commercial banking and the quite different values of a trading operation, that is in the end destructive. I think he speaks with some concern out of his own experience, and ought to be taken quite seriously.

I don't want to pick on Ernie Petrikis, not having heard what he said completely; but he seemed to be saying when I walked in here, "Leave it all to the regulators." This is an interesting point. I've spent, one way or another, 50 years of my live involved in banking regulation and supervision, at least part-time; and I tell you, you cannot, in my view, manage this system entirely by relying upon the regulators—for a very good reason. We all know that it's hard for the regulators to keep up with the complexity and rapidity of change; but apart from the technical problem involved, there's a very real problem, which I was interested in hearing Alan Greenspan mentioned the other day, when he was being talked about: even if there are some underlying imbalances arising, when things seem to be going well—people are making money, stock market's going up, profits are rolling into the market—a regulator walking in there and saying, "Whooooa! I want to interfere with Hy Minsky's concern here. I want to slow this thing down, and I don't care if you haven't had a failure in the last 10 years, I'm worried about the next 10 years, and I want to raise your capital requirement, and I want to raise your liquidity requirement, and I want to say you're doing too much proprietary trading, you ought to cut back on all those equity funds you have"—how long is that regulator going to last in the political world? Well, I don't know the answer to that question. But I do know that he's not going to be the object of great affection in the electorate, or in the Congress, or in the financial community. And that affects his ability to exercise foresight and analytic skill—even if he has it.

So I think you need some structural elements in the system that would let that regulator say, "I know you would be the greatest hedge fund operator in the world. I understand that. And if you were only in the equity market, and had an equity fund, you would be rescuing all sorts of small businesses, and providing credit, and all the rest. I'd love you to do all that. But I'm sorry, the law does not permit it." ... You don't want to become too intrusive; but I'd set out a few guideposts about what is appropriate and what is not appropriate, going back to the basic philosophical distinction I'm making between the essential functions of a commercial bank and the legitimate functions of the rest of the world. But do those functions of the rest of the world have to be protected by overt or even quiet government support? My answer, without question, is no.

That's about how I see this challenge in regulatory reform. I look at the House bill, I look at Mr. Dodd's proposal, and … there are some things I love that aren't in there; but basically these two bills have

… a lot of parallelism in the way they approach the matter. I think there ought to be a good chance. There's much more good in it than there are reservations, and I'm hopeful that we can set the stage here, finally in this year, for some useful reform that is structural in nature. It doesn't deal effectively with credit rating agencies. It doesn't deal with the accounting issues that are very important; it shouldn't, in my view—not the accounting issues. It doesn't deal with reconstructing the mortgage market, which will be the next big challenge of finance. It won't be done this year, but we have, oddly enough in this great country, a mortgage market almost totally dependent at the moment on government support, and presumably, that is not a long-range future we like to see; but it … is the biggest single part of the capital market that does need to be reconstructed.

So there are a lot of things to do beyond the issues that are talked about in financial reform at the moment. This can be an important step, and I hope it is an important step, toward clarifying the issues.

With that much, I will, not necessarily shut up, but I'll be glad to respond to any questions or comments you might have, and see if I can get myself in trouble.

Q&A

Q: I think you've cut to the heart of the matter, and that is, the regulators need to have a structure that supports what they're trying to do. In that regard, I'd like to ask you a twofold question: One, did we make a mistake in repealing Glass-Steagall and sort of muddy the waters about what the various banks could and should do? And two, is the Obama administration going in the direction of placing government officials permanently on the boards of the money center banks, or might they go further? …

If you remember, a year and a half ago, the idea of nationalizing banks was being discussed. Would they take the intermediate step of putting government officials on the money center banks' boards of directors?

PV: Glass-Steagall passed in '33, I guess, and all I remember about Glass-Steagall—and I think all that was in it—is that banks cannot be principally engaged in underwriting and dealing in corporate securities. I do not put that underwriting of corporate securities on the nonbank side of the equation today, given where we are with securitization and all the rest. The kind of philosophical distinction in my mind is, is the bank serving legitimate customer needs, relationship needs? And I think you can say that underwriting is serving a legitimate customer need. It's not terribly risky in history, and a certain amount of trading support for the customers who bought the securities is entirely appropriate. So I don't think in that sense the repeal of Glass-Steagall was terrible, but they should have thought about what they replace it with. I guess that's my problem: they didn't replace it with other restrictions.

If I interpret your [second] question correctly, what should have been done in the midst of the crisis, when a lot of government support was being provided to the banks? Would it have been easier, clearer, more effective to provide government capital, and to provide some of the government officials on the bank board itself? This raises this great flag of nationalization and so forth. I thought that was, frankly, overdone. Nobody was talking about nationalizing the banks in the sense of having publicly owned banks for an indefinite period of time. It was a question of how to most effectively get them restructured and get private capital in there.

As it turned out, … this idea of a stress test followed by a rather complicated deal for getting rid of so-called toxic assets has turned out to be reasonably effective. The stress test, I think, was honestly done;

it came out with kind of a narrow decision, a Scotch verdict, I guess. The next couple of years you're going to have a lot of losses, but if it all goes well, you'll make enough operating profits to sort of offset the losses. So we don't have to do something more drastic of the sort that you mentioned. We have the mechanism … for taking care of the toxic assets, which was so complicated it wasn't used; but we didn't need to. So it came out, I think, okay.

Q: Mr. Volcker, I have [a question] from my students in MBA finance class…. Since your premature departure—they asked me to emphasize the word "premature"—as Fed chairman, has the Fed been good at removing the punch bowl before and after the party gets started?

PV: This is about the punch bowl? *[Laughter.]*

Q: The punch bowl, yes. I recall that at the height of Asian financial crisis, about 12 years ago, you were a guest speaker at NYU addressing the financial crisis. Then, you expressed concern about the moral hazard caused by the corporate bailouts. Because of the recent financial crisis, we are again concerned about moral hazard. My question is, are we destined to live with moral hazard and the consequences of a situation where, if you make a profit, you privatize; if you make a loss, you socialize. Are we destined to live with that kind of a system?

PV: As I said, I think a central issue here in this reform is dealing with the moral hazard issue, and how successfully we can do that is what's in question. The way it's basically laid out in the Dodd bill is with a very strong resolution authority, which by law will not be consistent with keeping the failing institution alive…. It may be, hopefully, reasonably effective in instilling market discipline on those organizations.

That leaves you with what to do about the banks. That resolution authority could be applied to banks, too, and it is today, particularly on smaller banks. But on the banks who still have the regulatory authority and the other limitations on their activity, and particularly in keeping them away from the casino-type activities, that hopefully will minimize it.

Can I wipe the slate clear of history, the temptation that anybody in office is going to have for being on the cautious side when the whole financial system is at risk? No. But I can go as far as I can go in putting counterforces [in place].

On the punch bowl side, I'm reminded of something that probably has nothing to do with anything this afternoon…. You said I was at NYU for a while. I was a visiting professor. My main memory of that time is my last performance in a lecture hall at NYU. I was addressing fewer people than here, maybe a hundred people about to graduate with their MBAs. As you know, at NYU they tend to be fairly experienced people; they have been on Wall Street. All I was trying to do—not like now—was fill up the last five minutes before the program was over. This was in 1999, I guess. We'd just been through 10 or 15 years of historic gains in the stock market, compounding, I think, at that point at 17 percent a year. I said, "That's what you people have seen the last 10 years. Try to project your thoughts out the next 10 years." And I tried to think of something improbable. I said, "How many of you think that the next 10 years will bring stock price increases at a compound annual rate of, say, 10 percent?" Every hand in the room went up—every hand in the room of graduating of MBA students.

Now, of course, here we are, 10 years later, and the answer is zero. Not 10 percent, not 9 percent, not 5 percent, not 17 percent—*zero*. And I wonder what these people are thinking. I suspect they don't recall the conversation. But I do.

But the punch bowl question is another side, I think, of the difficulty of managing these affairs. The hardest thing in the world for monetary policy anyplace—it's also true of fiscal policy, which is obviously subject to different control, different initiatives—is to act in time when the disequilibria, or the bubbles, or the excesses, or whatever, are not yet generally obvious, but nonetheless, you want to get in a position of suitable restraint. It's like what I said about the regulators: Unemployment is still very high, but it might be coming down. The economy is recovering, but it's not back to its full potential. And the Federal Reserve says it's time to begin tightening. It's not going to be the most popular thing in the world, historically…. The historic record—it doesn't matter who it is—tends to be too slow, because you don't act forcibly until you have a real sense of crisis or being on the edge [of crisis]. That is an inherent problem, and it's true of fiscal policy as well. Everybody knows that that huge budget deficit is looming out there, and something has to be done about it. Nobody wants to do anything this year much; probably not next year, [either]. But will they really be ready three years from now, when the economy's better? Or will they say let's wait another year or two? I don't exactly know what Bill Martin's quote was, whether he said "Take the punch bowl away before the party gets too good," or whether he said "Take the punch bowl away when the party is in full swing"—and there's a difference between those two approaches. I think maybe he said "Take it away before the party gets *too* good." Anyway, I think that is a perennial problem that regulators have around the world.

Q: Mr. Volcker, just for clarification…, if I understand the Volcker Rule, as you described it, you would prohibit … proprietary investment by commercial banks.

PV: What kind of investment?

Q: You would want a law prohibiting commercial bank investment in the casino, right?

PV: It would prohibit proprietary trading.

Q: What seems to me to be involved is, on the one hand, their own funds; on the other hand, there's loan capital to the firms constituting the casino. Third, there are also loans to individuals who will then lend money to the firms and the casino. To what extent would you want to restrict and control these kinds of flows? And before you answer, I want to thank you for noting that there's a minimal contribution, in terms of value, by the financial sector. They may grease the wheels, but they can also throw stones or prevent the moving of the train.

PV: I shouldn't agree with the word "casino"—it's subject to a lot of different interpretations. But let me try to answer your question.

You talk about greasing the wheels…. It's not a figure of speech that Adair Turner [head of the UK's Financial Services Authority] uses, but it's interesting that you use it, because he analyzes the need for liquidity, in effect, and whether that's good, bad, or indifferent. He arrives at the conclusion that a certain amount of trading to provide liquidity is a good thing, but too much is a bad thing. In fact, he's saying if there's too much grease on the cobblestones, you're going to fall on your face.

Q: Is that a metaphor?

PV: No, that was a judgment. It got carried too far. But on how you control the secondary people, you lend money to people who themselves are leveraging. The classic question that arises there is what about the hedge funds and the prime brokerage function? I think for very big hedge funds or very big equity funds there's a strong argument, and it's permitted in the bill, for the Federal Reserve or whatever it is to put a restriction on their capital, and on their leverage, and on their liquidity. There are at least a handful of institutions where that should be done as a precautionary move. But I don't think we want to go out regulating every hedge fund in the world. I do think there should be reporting of what they're doing and reporting of their positions, at the very least, to the regulators, so you know what's going on.

But in terms of your question, you *are* going to supervise the commercial banks. The commercial banks are the prime brokers. The hedge funds are their customers, and the supervisor, wide awake in today's world, ought to be examining the prime brokerage function and looking to see whether the banks that are conducting prime brokerage are permitting their customers to get in over their heads in leverage. [The supervisor has] every right, in my view, to go in there and say, "We think that you are overly exposed in lending to hedge funds that are themselves getting overexposed." So I would handle it through the banking system….

All you say about banking systems, the banks are still crucial in this market. They are the ones that provide the liquidity and the financing for the hedge funds and the equity funds.

Q: … My question relates to the too-big-to-fail issue and, specifically, what you do with the large, nonbank financial firm. If I understood you correctly, you said that they just ought to be liquidated. Of course, liquidation in the purest sense of the term means shutting them down, selling off their assets. But if there is a sudden large sale of assets, particularly troubled assets, what concerns do you have about the spillover effects to other institutions in terms of the consequent depressing of asset prices as a result of a large liquidation, particularly given the relatively strict mark-to-market accounting rules that we have in place today? Doesn't a liquidation like that, because of mark-to-market rules, just really magnify, in a negative way, the effects of liquidating one large, troubled firm?

PV: It's obviously a relevant question. Let me just say, so far as the accounting rules are concerned, they need a look, too. Some of the unfortunate consequences of some elements in the accounting rules need change, and they are being reviewed. An interesting conflict is developing between the international standard setters and FASB [Financial Accounting Standards Board], where the international standard setters appear to be more understanding of these problems than FASB. I say *appear* to be—that's a weak word. They *are* more understanding of these problems than FASB.

But I can't give you absolute assurance that this process will go so smoothly in difficult circumstances that you don't set off a kind of panicky reaction elsewhere. What are your protections against that?

First of all, when you look at nonbanks—and you can tell me differently; you may have a different opinion—I have difficulty adding up really systemically significant financial institutions outside of commercial banks and outside of insurance companies—which, I assume, will be otherwise regulated—where this becomes really important. I can add up maybe five, maybe seven, on my fingers….

Now, maybe I'm wrong, but you've got two lines of defense—I guess three lines of defense. One is, you are going to protect the banks. One of the results is a kind of liquidity concern about banks themselves. They have access to the Federal Reserve in extreme circumstances. Their deposits are even more fully guaranteed than when you started, and that was pretty successful in this period in stemming a run on the banks. If you clean this up efficiently enough and quickly enough, I hope you minimize the side effects. It's contemplated that the immediate liquidity needs of the failed institution would be met. They'd be able to meet their repurchase agreements. They'd be able to meet other secured money market commitments with the help of the government, and hopefully, their less liquid liabilities would have to stand still for a while. They're maybe impaired, but they're not going to go bye-bye. If you act with sufficient speed and effectiveness, and given that there are not so many really systemically involved institutions, maybe you can deal with it.

As a last resort, in the House bill—I forget what's in the Dodd bill—they would leave the Federal Reserve with the infamous 13(3). That will be the purpose of 13(3): if you have a general infectious run on the banks or the financial system, so to speak, the Federal Reserve would still be able to step in—not to aid a particular institution, but to provide a safety net for the whole system. That would be very much a last resort. But I think it's not reasonable that they be left with that authority, which they now have, or they now have used, so you're not changing that.

Is this perfect? No. Nothing's perfect that I know of in this area. What are your alternatives? I think it's a pretty good chance.

You also have this idea of a living will, so to speak, where these [firms], whether they're a bank or a nonbank, but particularly the nonbanks, will have to kind of certify to the regulator that if they really get in trouble, they have arranged their affairs so that pieces of the business are separable and saleable. Hopefully, that will help too.

Q: Mortgage-backed securities were … the toxic assets to a great extent. Would you limit debt securitization, since there is more regulation against debt than there is against debt securities?

PV: The question is, what about securitization? I would permit banks or others, particular banks could engage in securitization where they get together obligations for their customers, stick 'em in a package, and sell 'em.

… I would go further, and say when you sell it, you've got to keep 5 percent of it yourself, without hedging the credit risk. I would say that's fine. I'd make it 10 percent, but that's the way I would approach that one.

Q: … We saw during the crisis what happens when there's a run on a large money market mutual fund. In fact, the government … gave an explicit guarantee, and though that program has expired, now we're dealing with an implicit guarantee … to provide a level playing field. There are a number of proposals. One would be to make it explicit and charge; another, more creative and provocative one would be to unlink the link to the dollar, to a net asset value, and allow those to float. You write a check for a dollar, you may get 99 cents. Under that proposal, two-thirds of the money in money market mutual funds—I guess that's around $3 trillion—would flow back to the banking system. Have you given any thoughts to the treatment of the money market mutual fund issue?

PV: As the saying goes, I'm glad you raised the question, because I have rather strong feelings in this area.

It seems to me that money market mutual funds, the ones that promise payment on demand and at par, which arose when I was chairman of the Federal Reserve Board, … are a classic case of regulatory arbitrage. What do they do? They do the same thing that a bank does with a demand deposit, without any reserve requirement, without any capital requirement, and without any oversight over what they're doing. In fair weather, they do fine, and there have been a number of cases where they've been under pressure in the past, but they were owned by somebody else and their owner bailed them out with a not excessive amount of capital infusion or lending.

But when this crisis came along, that didn't work, and this creature of regulatory arbitrage got bailed out—and in a most extraordinary way, I might say. I think the Treasury bailed them out with the Exchange Stabilization Fund, and I'm still trying to figure out the connection with the domestic money market fund and exchange stabilization. But there it was: in the midst of crisis, it was deemed so important that they had to do it. I accept that.

But what do we do in the future? I say, if they want to walk like a bank and talk like a bank, they ought to be at least minimally regulated like a bank—which means, just as a bank has a reserve requirement on demand deposits, they ought to have one; the bank has a capital requirement, they ought to have one. There ought to be pretty tight restrictions on what they can invest in so that they are competing head-to-head with commercial banks and with the government-sponsored favored treatment. Now, if they're not promising payment at par, if they're not promising payment on demand, then they can be a mutual fund like any other mutual fund. That is the distinction I would make. That was first proposed in the G30 report 18 months ago…. I don't know quite where it stands, … but I know in the original Treasury proposal, that's the point of view that they took. The extent to which that's been put in legislation, I don't know whether it's completely forgotten about or not. It's one of the many issues that should be there, but how many issues can you handle at one time? But the overall significance of it, to me, is precisely what you say. You say $3 trillion—I think in total it was $4 or $5 trillion—but it took some trillions of dollars outside the banking system and, ironically, ran a lot of that money to the commercial paper market, which was in turn supported by the commercial banking system. It took that money out of, in some sense, where it belonged in terms of supervision, regulation, and oversight.

I would love to see that taken care of. I'm not sure it's going to be done this year; but I think it is a problem sitting out there, and it's a *classic* problem. For years it was clear that it's regulatory arbitrage, but they would say, "Who cares? We've never gotten in trouble, the people like it, they make a little bit more interest—don't do anything about it." But now we had the crisis and it did get government support, and it should be changed.

Q: As you know, Senator Dodd's bill is facing some challenges in the Senate. I'm wondering … how engaged you might be in trying to help get the Dodd bill passed, particularly with many Republicans saying that they won't support it. Have you been helping the administration get the bill passed? Have you been talking to senators, particularly Republican senators, about the merits of the bill?

PV: I'll talk to anybody who wants to talk to me about the merits of the bill.

Q: I'm wondering if you're lobbying, sir.

PV: If you're in the United States Senate, I'd be doubly delighted to talk to them, because I think the argument is very convincing. But I do support it. I said that the Dodd bill … more or less paralleled the House bill. If I was writing it all, would I write it all exactly that way? I would not. But this is what we have on the table, and I think it would be a forward step to see that passed.

I obviously have a somewhat idiosyncratic view of all this, but I don't understand where the opposition to something so nice as the Volcker Rule comes from *[laughter]*. There are only three or four banks that do what I would prohibit, so why do these three or four banks have such influence. I don't know if they do, but it looks that way—they get people to talk to them. A lot of the interest I see is just, "Now, just make a little exception for us here, and maybe a little de minimis exception for us there." That's what gets us, in my view: while a de minimis change in some part or another in itself doesn't upset the whole thing, one de minimis leads to another de minimis, leads to another de minimis—like money market funds—and you end up in trouble. So I'd like to keep it as clean as possible.

Q: When I watch what's going on in Washington, it reminds me of when I was at Amex, and *BusinessWeek* ran an article about [rearranging] the [deck] chairs on the *Titanic* because of our [new] chairman. I sort of sense that this failure that we've had is due more to the inadequacy of the people rather than the institutions. Institutions are run by people. You've got people who define their powers and authority very narrowly—they need a job description. Other people say, "I know my mandate, and I go out and do it." To think that the Fed had … 40–50 people at Lehman Brothers, people at Bear Stearns, and they didn't know what was going on just boggles my imagination. In your experience, if you had to allocate responsibility between the structure of the law and the quality of the people, which tend to be mostly attorneys and economists rather than accountants—and I admit that I started out as a CPA—where will you allocate most of the responsibility? To the law, or to the incompetence of the people that were appointed to do the job, both from a technical point of a view and an ideological point of view?

We had a chairman of the SEC who said, "I will only act by consensus." What that meant was no action, whether it was on the proxy rules or any rules—no action. So we could talk about all the new legislation down in Washington, but if we don't have the right people to execute the legislation, we'll be back in the same place in a couple of years.

PV: The only answer I can give you is, I think we need both. Obviously, this has gotten so complicated, so complex, you need a lot of people who are able to keep up with the perpetrators, so to speak, and they never quite keep up. But they will not be very effective unless they have a good structure of law behind them, which is exactly my point. So we need … some elements of a basic market structure, and a basic structure of regulations set out by law, and then get the best people you can to manage it….

I'm going to answer a question you didn't ask. What about the Federal Reserve's role in regulation? I think for various reasons they should be, and I think historically they have been, in the best position to exercise sophisticated, expert regulation—not just from the standpoint of being good supervisors, but the responsibility for monetary policy and supervising regulatory policy, in my view, go hand in hand. That has been emphasized recently by this whole controversy of what you do about bubbles. You're not going to deal with bubbles with monetary policy alone or fooling around with the federal funds rate by an eighth of a quarter. I'm not saying you might not bring monetary policy to bear; but there are other tools you can bring to bear, most particularly, through the regulatory and supervisory process. Somebody—obviously, it's easy in hindsight—should have been after the development of the subprime mortgage market and looking at what the commercial banks and others were doing without sufficient oversight, and understanding about what was going on. Apparently, in that case the regulators didn't fully understand what was going on; I understand that. But … I do think the Federal Reserve is in the best position. A big mistake would be made by shutting the Federal Reserve out of supervision and regulation for a variety of reasons; but among others, I think you'd get worse monetary policy and worse regulatory policy. That isn't to say they're all perfect and we don't need improvement and all the rest, but that is my view. It may be a prejudiced view, coming out of the Federal Reserve, but I feel it very strongly.

Q: I wonder how many people who work at the Fed have worked in the banking system, on the trading desk, and have a feel for the business?

PV: I haven't been there for 25 years, but some of my … friends in banks say they have been impressed by the competence of Federal Reserve examiners. Now, I don't know how far that goes. I have no doubt that, historically, not enough emphasis has been put on that role and function year after year. Sometimes it is, sometimes it isn't. But it needs a reinforcement, which I hope and believe will be an outcome of some of this legislation.

Fortunately, two or three months ago, there was some sense that the Senate would try to take the Federal Reserve out of supervision and regulation virtually entirely. They haven't gone 180 degrees on that, but they've gone 145 degrees on that, anyway, which I was glad to see.

But there are problems here, unresolved or not satisfactorily resolved, in my opinion, in [both] the Dodd bill [and] the House bill in terms of the structure of the Federal Reserve and the division of responsibility among the various regulatory agencies. But to take the simple concept of capture by the industry, of regulatory capture, I think that its danger is inherent; it's been apparent in the past in various times. If any agency is resistant to it—and I'm not sure any of them are 100 percent resistant—it would be the Federal Reserve, simply because they have other responsibilities that are equally or more important, and their life or death does not ride on acceptability by the industry.

PAUL McCULLEY

Managing Director, PIMCO

It is an absolute pleasure and honor to be here. I gave the keynote a couple of years ago. It was my first time to be at the Minsky conference, and I feel like that I'm part of a cult, but it's a good cult, and that we're on the right side of history. It's absolutely wonderful to be back with you again.

I want to open up with simply a little story that should make everybody in the room feel particularly good, and then we'll get into discussing some economics and so forth.

Harry Markowitz has been a friend of mine for about a decade. I became friends with Harry two ways: number one, Rob Arnott of Research Affiliates has an advisory panel that he gets together famous academics such as Harry, or Jack Treynor and people of that nature, every year. I'm part of that group, so therefore we spend two or three days a year over a weekend together. I've gotten to know Harry that way, as well as the fact that Harry and the late, great Peter Bernstein were very close friends, and Peter and I were very close friends, so he brought us together.

I've been preaching the Minsky thesis at this event for a number of years, and Harry's always been very, very polite. I did it again this past Sunday morning—I had the morning speech. After I finished, we had a nice Q&A and so forth, and Harry said, "Paul, if I had to read one book by Minsky, which one would it be?" I said, "Harry, please tell me that you've read at least one book by Minsky." He said, "No, I haven't, but I think I would like to, and I think I'm probably old enough now." I promised Harry that I would send him one personally. I'm quite sure that, if I don't follow up on that, somebody at this table *will* follow up *[laughter]*. So, the father of the efficient markets hypothesis has finally decided to come to the Minsky church. I think that is a glorious, glorious moment, don't you? That's the vignette on Harry—and he truly is an absolutely delightful man.

From the standpoint of what I want to talk about tonight, a great deal of it has already been discussed today. I feel a little bit like Jim Bullard did at lunch, when he said that Paul Krugman had already given 90 percent of his speech. That's basically true for me as well.

But what I want to focus on is actually Paul's number three, and that is the shadow banking system. Paul listed six potential culprits in the financial crisis, but it truly was number three. Actually, Paul mentioned, not in as much detail as I think maybe he could have, that he was drawing a lot of his … comments today [from] the work of Gary Gordon, which is absolutely fantastic. Have a lot of you read Gary's piece "Slapped in the Face by the Invisible Hand?" I see a lot of nods here. That's where the phrase Gary coined, the "quiet period," came from. Actually, it's fantastic work that Gary has done. He'd be a great person to have here next year at the Minsky conference.

One of the fascinating things that he walks through is the nature of banking, and that's where I want to start tonight. Let's start with first principles.If we do, then I think we can understand why we shouldn't look at the conventional banking system and the shadow banking system as separate beasts but as intertwined beasts. Paul touched on this briefly. The essence or the genius of banking—not just now, the last century, or the century before that, but since time immemorial—is that the public's ex ante demand for assets that trade on demand at par is greater than the public's ex post demand for those types of assets. Let me repeat this, because this is first principles: *the ex ante demand for on demand liquidity at par is greater than the ex post.* Therefore, you can have a banking system, because the banking system can meet the ex ante demand but never have to pony up ex post. Therefore, the essence or the genius of banking is maturity and quality transformation.

In fact, that is a requirement for saying your banking system is solvent. A fractional reserve banking system by definition is solvent only if it is believed by the public to be a going concern. By definition, if the ex post demand for liquidity at par proves to be greater than the ex ante, the banking system is insolvent, because the banking system is always at its core promising something it cannot deliver. Everyone following me here? *It's promising something that it cannot deliver.*

Gary in his paper goes through how that promise was dealt with during the 19th century, before the New Deal era. [Then,] we had panics all the time—otherwise known as runs—because we didn't have a lender of last resort, and we didn't have deposit insurance. Actually, during the 19th century, the system dealt with its recurring panics in lots of novel ways, including clearinghouses that would de facto be a central bank, and suspension of convertibility of deposits into cash. So the problems that we've been dealing with in the last couple of years are not new; they go back to the origin of central banking. We had a quiet period, and it was unique in history. The quiet period came about, I think, for a lot of the reasons that were articulated today, in that conventional banks, after the Great Depression, were considered to be special. And in fact, banks *are* special. As mentioned earlier today, if you think that the banking system can be guided to stability as if by an invisible hand, then you are deluding yourself. But that is what happened with the explosive growth of the shadow banking system.

Banking is a really profitable business—a *really* profitable business. In its most simple form, … the bank issues demand deposits, which are guaranteed to trade at par because they've got FDIC insurance around them, and also because a bank can rediscount its assets in order to redeem deposits in old-fashioned money. Remember, this is a banknote. Have you ever looked at what is on this note? It says right at the very top, "Federal Reserve Note." It also says right down here, "This note is legal tender for all debts, public and private." This is what the public wants. They want to know that they can turn their deposit into this thing. And if they know they *can* turn it into this thing, they don't. With me there? *If I know I can, I don't.*

Now, this is a unique note. This is a Federal Reserve liability, and actually, it's really cool. It's missing two things: it doesn't have a maturity date on it, so it's perpetual, and it doesn't have an interest rate on it. I would love to be able to issue these things. It would make me very, very happy to issue these things. In fact, that's what banks did in the 19th century: they issued these things.

Well, we turned that monopoly over to the Federal Reserve, which I think was probably a pretty bright idea. But demand deposits are just one step away from these. Conceptually, demand deposits have a one-day maturity. I can write a check on it, and it goes out at par tomorrow. They have a one-day maturity, conceptually. But in aggregate, they have a perpetual maturity, so maturity transformation and quality transformation is therefore a very profitable business…. If you can issue perpetual liabilities that the public considers to be one-day liabilities at par and buy longer-dated illiquid securities, or loans on the other side of your balance sheet, you've got a really, really sweet business—a *really* sweet business.

In the quiet period, we regulated that really sweet business. I think that was a pretty bright idea. In order for that business not to be prone to panics, and therefore financial crises, you needed to have deposit insurance. Deposit insurance, by definition, cannot come about as if by an invisible hand. Deposit insurance cannot be—*cannot be*—a private sector activity. It is a public good. Your deposit insurer is essentially a subsidiary of your fiscal authority, and, in extremis, your monetary authority can monetize the liabilities of your fiscal authority. I'm not saying that pejoratively. I'm not being pejorative at all; just descriptive. Therefore, deposit insurance is inherently a public good. Access to the Fed's balance sheet is inherently a public good, because the Federal Reserve is the only entity that can print these things.

So, essentially, banking has two public goods associated with it, and therefore, naturally, it should be regulated. That was the quiet period model. Regulation took the form of what you could do, how you could do it, and how much leverage you could use in doing it. As was mentioned by Paul Volcker a number of times, the regulatory burden, if you will, that comes with a conventional bank is actually quite high. However, during the early years of the quiet period, it was a very profitable endeavor, so there was a quid pro quo, which actually led to the old joke (this was actually in the savings-and-loan industry, but, same thing) that it was a great job: take in deposits at 3:00, lend them out at 6:00, and be on the golf course at 3:00—3-6-3 banking *[laughter]*. That's a pretty nice franchise, so therefore bankers would have a pretty strong incentive not to mess it up. Essentially, there were oligopoly profits in the business. I think Gary Gordon is actually right on that proposition.

However, the invisible hand, by definition—and this does not mean that people are evil or immoral—will naturally want to get the profitability associated with banking without the regulation. Ergo, we created the shadow banking system, where I can get the net interest margin associated with maturity and quality transformation on a much smaller capital base. Wouldn't you naturally want to do that? Of course you would. In fact, that's what happened starting essentially in the mid-1970s, accelerating through the 1980s and '90s, and then exploding in this decade. The birth of the shadow banking system required that capitalists be able to come up with an asset—which for shadow bankers is actually a liability—that was perceived by the public as just as good as a bank deposit. Because, remember, the public has an ex ante demand for something that trades on demand at par, and therefore you have to be able to persuade them that your asset, which is actually your liability, is just as good as the real thing. If you can do that, then you can have one whale of a good time. In fact, that asset, which is also the bank's liability, needs, in Gary Gordon's terms, to be characterized by informational insensitivity—meaning that the holder doesn't need to do any due diligence, just take it on faith that this liability is good at par tomorrow. Money market mutual fund shares achieved that status. They always trade at par, and if there's any danger they *won't* trade at par, then the sponsor will step up and buy out the dodgy asset, and they will trade at par. So, essentially, the money market mutual fund industry was at the very core of the growth of the shadow banking system. It created a liability perceived [to be] just as good as a demand deposit, with deposit insurance issued by a bank with access to the Fed. *It was a great game.*

In and of itself, that didn't lead to the explosive growth in the banking system—in that need to have another chain. Money market mutual funds needed to put something on the other side of the balance sheet. They had created the liability that the public perceived as just as good as a bank deposit, so they had half the equation; but then they had to put something on the other side of the balance sheet. What went on the other side of the balance sheet? Money market instruments such as commercial paper and repo. In the money market mutual fund arena, they were giving accounting treatment, under Rule 2a-7, of accrual accounting for their assets, so the assets didn't have to be marked to market. You had accrual accounting, so you could actually maintain the $1 share price. At its peak, money market mutual funds were about $4 trillion—about $3 trillion now. So the money market mutual fund industry became the funder of a bigger shadow banking system, particularly off-balance-sheet conduits such as structured investment vehicles (SIVs), which would issue asset-backed commercial paper or engage in repo. Before I mention SIVs, I should say this: investment banks are shadow banks. How do they fund themselves? With repo, or CP.

So, the growth of the shadow banking system, logically followed by the invisible hand of the marketplace wanting to get the profitability of the regulated banking system and to lever the daylights out of it—and to do so you had to create this information-insensitive asset for the public that was perceived as [being] just as good as a demand deposit—it all worked swimmingly well, sort of. But only sort of. Because the shadow banks—and here, investment banks were right at the top, the conduits of SFVs [structured fincial vehicles] and the whole alphabet soup of off-balance-sheet vehicles—were the predominant place where securitizations of subprime mortgages were placed, or the securitizations of other types of assets. Essentially, the shadow banking system was wholesale funding and buying securities, and that mirrored the banking model, which has deposits and loans. Turn the loan into a security, turn the deposit into asset-backed commercial paper, and you have the same vehicle from a functional system—but you have it outside the regulatory structure.

Actually, let me correct myself: there *was* kind of a regulator in the shadow banking system. That's what's known as the rating agencies. In order to do the trick of creating a shadow bank—a CDO [collateralized debt obligation] is a shadow bank as well—you have to have the rating agencies declare that your senior liabilities are just as good as a bank deposit. In fact, most money market mutual funds get themselves rated, and S&P, and Moody's, and Fitch do have some particular rules for giving you a triple-A rating on your 2a-7 money market fund. But that was the only regulator, and that regulator was actually a private entity ostensibly providing a public good. It didn't work out very well….

The explosive growth in the shadow banking system: [the system was] essentially the owner of that which was created in the originate-to-distribute model of mortgage creation. People talk about the originators, but *they* distribute. You say, "Well, who do they distribute to?" They distributed to the shadow banking system. Sometimes it would be one and the same, because some of the originators also ended up holding a great deal of the senior [tranches] on their securitizations; or, as John Mack at Morgan Stanley said when he was being questioned by Congress, "We ate our own cooking, and we got sick" *[Laughter.]* They *did* eat their own cooking, but actually, Morgan Stanley, before it became a bank holding company, indeed *was* a shadow bank. So what the explosive growth of shadow banking was about was the invisible hand having a party, a nonregulated drinking party, with Moody's and S&P handing out fake IDs *[laughter]*.

On August 9, 2007, it was game over. If you have to pick a day for the Minsky Moment, it was August 9th. And actually, it didn't happen here in the United States. It happened in France, when BNP [Banque Nationale de Paris] said that it could not value its toxic assets in three of its off-balance-sheet vehicles, and therefore the liability holders who thought they could get out at any time were frozen. I remember the day like my son's birthday—and that happens every year—because the unraveling started that day. In fact, it was later that month that I actually coined the term "shadow banking system" at Jackson Hole.

Actually, Jackson Hole was an incredibly intense experience. This was only my second year there, and I was in awe. I listened for the three days, and at the end, Marty Feldstein always does the wrapup. And everybody wants to talk.... One of the interesting things about that group is that everyone wants to talk. Since I was a newbie, I was listening a great deal and actually didn't say anything until the very end. And since I was in the marketplace—I run a $200 *billion* money market desk at PIMCO—I stood up at the end and I said, "What's going on is really simple. We're been having a run on the shadow banking system, and the only question is how intense it self-feeds as we put its assets and liabilities back onto the balance sheet of the conventional banking system." If you want to know when [the term] was created, that's when it was created. That was a pretty good call, probably one of the better ones I've made.

Now, I didn't anticipate that it was going to lead to the debacle that it did lead to. In fact, while the run commenced on August 9, 2007, it was pretty much an orderly run up until September 15, 2008, in part—here I give the Fed credit, not criticism—because the Fed evoked 13(3) in March 2008 in order to facilitate the merger of Bear into JPMorgan, and concurrently opened its balance sheet to the biggest shadow banks of all, known as the investment banks. It wasn't just the big five; it was the primary dealer credit facility. Essentially, after the nightmare of Bear, the Fed blinked, and opened its balance sheet to shadow banks that it wasn't regulating. I'm sure that was an incredibly difficult decision for the board to make—not just the Bear transaction, but to open the discount window, which in effect is what the primary dealer credit facility is, ... to the shadow banks. But it was necessary because runs are self-feeding unless you stop them with somebody with the ability to print these things *[holding up a dollar bill]*. That's the only way you stop it, because this is an asset that will trade at par tomorrow. And during a run, that's what the public wants. A run is turning upside down the genius of banking. A run is when ex post is greater than ex ante. All was fine until the fateful decision was made not to do the same for Lehman, and the reserve fund broke the buck.

The period following that week will be one that we remember for the rest of our lives, and also, I think, one that we will remember where the Fed was at its finest hour. The Fed essentially created a whole host of facilities to stop the run. They expanded the primary dealer credit facility to what are known as Section 2 assets, so it meant that you could rediscount pretty much anything at the Fed that you could intermediate in the trial party repo market. In fact, when they made the announcement, they said, "Anything that is acceptable collateral in the trial party repo market is now acceptable on our balance sheet." You also had the deposit insurer, the FDIC, step up to the plate, doing two incredibly important things. They uncapped deposit insurance on transaction accounts, which meant that uninsured depositors in transaction accounts became an oxymoron; therefore, if you [had a] transaction account, then actually you didn't need to run, because you had the insurance. And then they became a monoline insurer to nonbank financials with the TLGP [Temporary Liquidity Guarantee Program], when they said you could issue debt with the full faith and credit of Uncle Sam for a 75 basis points fee. No surprise: $300 billion was issued. So you had the Fed step up and provide the public good to the shadow banking system, you had the FDIC step up, and as Paul Volcker was noting this afternoon, you had the Treasury step up and do the same thing for the money market mutual fund [by] using the foreign exchange stabilization fund. It was a triple-thick milkshake of socialism, and it was good. It was *good [Laughter.]* Again, I'm not being pejorative. I'm being descriptive.

Banking is inherently a joint venture between the private sector and the public sector. Banking inherently cannot be a solely capitalistic affair. I put that on the table as an article of fact. In fact, speaking at a Minsky convention, I'm preaching to the converted. "Big bank" and "big government" are part of our catechism, and that's exactly what came to the fore to save us from Depression 2.0.

Let me draw a few conclusions: (1) how should we reregulate the financial landscape, I think as Jim [Bullard] was calling it [earlier] today, to make sure this doesn't happen again? Because the collateral damage to the global economy is truly a tragedy. If it was just the bunch of people participating in the underage drinking party with fake IDs losing their job, it would not be a tragedy. It's a tragedy because of the collateral damage to the global economy. I think the first principle is that, if what you're doing is banking, de jure or de facto, then you are in a joint venture with the public sector, period. If you're issuing liabilities that are intended to be just as good as a bank deposit, then you will be considered functionally a bank, regardless of the name on your door. That's the first principle.

(2) If you're engaged in these types of activities, call them banking. Let's not make a big distinction here between conventional banking and shadow banking. If you're engaged in these activities in such size that you pose systemic risk, you will have mandated capital requirements, you will be supervised by the Federal Reserve—I already told you who I think the supervisor should be—you will have leverage restrictions, and you will have to adopt by civilized norms. And, in fact, a great deal of what is on the table on regulatory reform right now proceeds precisely along those lines. *If you're gonna act like a bank, you're gonna be regulated like a bank.* That simple. And maybe you just might go back to working on your golf game at 3:00. That is the core principle.

There's truly a devil in the details, because it's quite natural that nonbank levered-up intermediaries don't want to be treated like banks. I wouldn't either—*I wouldn't either*. But the truth of the matter is, if you're going to have access to the public trough, *then you're gonna be treated that way*. In fact, I found an example of this in my own life, which I'm sure most of you who have older children have experienced as well. When my son turned 18, he said, "Dad, I'm now of the age of majority, and I can do whatever I want." I said, "Son, that's absolutely true. However, I still control the Bank of Dad, and if you want to have access to the Bank of Dad, there are going to be rules. If you want access to the Bank of Dad, that's fine. But if you want access to the Bank of Dad, there are going to be rules." *[Laughter.]*

Well, the Federal Reserve and the FDIC and the Treasury together are the Bank of Dad, and I expect regulation to be similar to that which I have on my son, who's now 20. We'll probably have the same discussion when he turns 21. It doesn't mean I want to stifle his innovation. It doesn't mean I want to stifle his creativity. I want him to be all he can be. But as long as he's banking at the Bank of Dad, there are going to be rules. So there's my regulatory framework for you. Just think in terms of the Federal Reserve and the FDIC and the Treasury together, but the Federal Reserve has got to be at the top of the totem pole because they truly *are* the Bank of Dad, because—and I'll do it again *[holding up a dollar bill]*— they can print these things. The guy who can print these things has got to be the supervisor. To me, it's unambiguously clear, and the fact that it's being argued actually befuddles me. I operate on the notion that self-evident truths should be self-evident, but apparently Washington doesn't operate on that thesis.

Let me finish with one last thought on this whole concept of shadow banks, reregulation, et cetera…. I run a 2a-7 money market mutual fund. We're very small in that business at PIMCO. I think our 2a-7 fund is around $500 million, and we manage a trillion dollars, so it's a really, really small little number. So for me to say something negative, if you will, about 2a-7 money market fund business, since I'm actually in that business, might be provocative, but—actually, Paul Volcker already stole the thunder on this whole thing—the 2a-7 money market mutual fund should not exist in its present form. It's still $3 billion, and essentially it offers a liability—its liability, the buying public's asset— that is designed to trade *at par*. It is a bank, and it has absolutely no capital. In fact, for a mutual fund to have capital would kind of be an oxymoron, because it has shareholders. So it's a weird beast. It has no capital and it doesn't have a lender of last resort. In fact, we learned, after the reserve fund deal, that a run on that system can have incredibly mean, nasty, and nefarious results.

I know that the SEC, who is the regulator, is tightening up, belatedly, what 2a-7 money market mutual funds can do on the asset side of their balance sheet. That's good and fine. But the industry is trying to come up with some type of liquidity backstop scheme, and guess what: the anchor for the scheme is for the sponsors of 2a-7 money market funds to put up the capital to charter a bank that has access to the Fed's discount window. Come on! Who is kidding whom? That's just a conduit, essentially, to the Federal Reserve. The Federal Reserve actually acted as a lender of last resort to the industry in two different ways: directly, through the Boston Fed program, and then indirectly, through the CPFF [Commerical Paper Funding Facility]. So my viewpoint—it's very similar to Chairman Volcker's viewpoint—is that this should not be a sidebar issue in regulatory reform.

Would this scheme of creating a bank funded by the fund sponsors that then has access to the discount window work? I think it might work. But why *should* it work? I'm not sure. Actually, I am of the school of thought that since that complex was one of the major villains, if you will, in the panic of 2008, they should be treated like a bank or we should move to a floating net asset value (NAV) for money market funds.

Now, the industry will tell you, and I will certainly agree, that if 2a-7 money market funds are floating NAV vehicles, the industry will simply be reintermediated back into the conventional banking system—that it will just evaporate and go away. Throw me in the briar patch, but I really don't see anything necessarily wrong with that. We will still have floating NAV funds and mutual fund complexes, but if you want to run a check, you should have to write it on a bank.

Which leaves my last thought: [FDIC Chairwoman] Sheila Bair did something I thought was brilliant when she … temporarily lifted the caps on deposit insurance. She took the cap off transaction accounts, and it's still off, but it's considered to be temporary. I actually think a two-tier structure for deposit insurance makes a lot of sense; that transaction accounts—these things [dollar bills], that's a transaction account; you just don't have to write anyone a check because it's already written for you; it's kind of like a cashier's check. Transaction accounts are what the public wants: guaranteed to trade at par at all times. I have no problem with that becoming permanent. Actually, if you made that permanent, then it would be very easy for the banking system to accommodate remuneration of the 2a-7 money market funds. It's difficult when you have a cap on transaction deposits; but if you don't have a cap on transaction deposits, it actually works.

I've talked too long. I promised you I wouldn't do this. I was going to talk short and then have a long Q&A, but I'm a Baptist minister's son, and we can't help ourselves. Regardless of how simple the sermon may be, it always goes on too long, because the minister enjoys giving it even more than the audience enjoys receiving it *[laughter]*. Thank you very much….

Q&A

Q: First of all, my compliments on an extraordinary presentation, especially at the end of the day.

A small comment—tell me if I'm wrong: I think an additional factor leading to the genesis of the money market funds was not simply those oligopoly profits, but we had things like Reg Q back in the 1970s, which made it impossible for the banks to hang on to deposits…. I don't know how important that was, but I remember at the time it sounding like an important thing.

PMcC: It *was* important. Regulation Q and inflation together created the platform for the money market mutual fund. Remember, under Reg Q, anytime … the Fed fought inflation, banks would be disintermediated into the T-bill market, because Regulation Q would cap what they could pay. Regulation Q was repealed in the first three years of the 1980s, so that regulatory arbitrage no longer is operative. But you're absolutely right when you think in terms of the history. It wasn't just to capture the management fees on the funds; there was an economic justification [as well], because it was regulatory arbitrage around Reg Q. Reg Q is in the dustbin of history.

Q: I'd like to make a few minor corrections. That bill that you pulled out, when I was a kid, would have said on it, "Payable in silver to the bearer on demand."

PMcC: I'm aware of that one.

Q: And the Federal Reserve note that replaced it was backed by gold until 1968, when Bill Martin finally scared the hell out of Lyndon Johnson and they removed the gold cover from the Federal Reserve note issue, which had been 25 percent until 1968.

These things are not that simple, a lot of them. The Fed was formed in part to facilitate par collection of checks across the country. It took the Fed 40 years before they finally eliminated discount out-of-town checking from places like Atlanta, Georgia. It's going to take the Fed 40 years to get rid of some things that it has recently promoted also. These are not efficient mechanisms, any of them.

The comment has just been made that the money market mutual fund was a creation of government regulation. It started off at Amalgamated Bank in New York, where they offered you an account backed by Treasury bills, which gave you a good deal better interest than you were getting at your bank—though you might get a television set, also, when you went into the bank.

I was giving a talk [to] Prudential's Fixed Income Fund managers in the week that Lehman was let go, and my audience kept disappearing. I said to my host, "What the hell are they doing?" And he said, "They're getting our money market fund out of commercial paper and into governments, because all of the people who hold the fund don't want to be in commercial paper anymore."

The decision to let Lehman go was a disaster because the Federal Reserve System, which has never respected the money market fund—never thought it had a function—was perfectly happy to see the Lehman paper collapse in the commercial paper market and did not understand what an enormous impact, quite apart from bonds sold to German doctors and all the other *hazarai* of the Lehman story, [it would have]. We still haven't vanquished that.

The Radcliffe Commission in the 1950s—and I will then stop—had a great line, which was that deposits come and deposits go but current account goes on forever. The bank, to a large extent, is built upon this fact, that there is this need for transaction balances. Starting in the 1950s, when Ralph Leach, who was Bill Martin's favorite tennis partner, went to Morgan and started the Fed funds market, there's been a great deal going on. A lot of it is very complicated, and a lot of it relates back to where the money comes from. I admire most of your talk, but the thing is more complicated than you've led us to believe.

PMcC: Thank you very much, Martin [Mayer], for those very insightful comments born of a lifetime of studying the system. I did oversimplify. I have a tendency to use Occam's razor a fair amount. I think I probably learned that from my Dad, when he explained to me that all sermons have three points, and they're always the same three points: stop your sinnin', do more good, and give more money. In fact, can you think of any sermon you've ever heard in church that didn't run around those three points? I've actually known the pastor to go directly to point three *[laughter]*. Have you too? Stop your sinnin', do more good, and give more money—you've been there. Thank you, that was very nice.

Q: On Martin's comment, as you probably know, when the money market funds were first set up, Bankers Trust decided that this was a business they in fact should be in. They petitioned, first, the Federal Reserve, and then it went to the Supreme Court…. Under the rules of Glass-Steagall, because money market funds were investing in corporate paper, the decision was whether corporate paper was in fact a loan or a note. The Supreme Court decided that a note was a security, and because it was a security, that commercial banks could not participate in this market.

The Federal Reserve could have blocked all money market funds had they decided to submit a brief to the Supreme Court suggesting that a corporate commercial paper was the same thing as a commercial bank loan. They decided not to do that.

PMcC: Yes, I was aware of that history, for good or for bad. I think all of us, after the reserve fund, went back and briefed ourselves on precise historical points in the creation of those funds…. There was lots of arbitraging around the money market, the Regulation Q issue, including the money market demand account. . . .

Thank you very much.

THOMAS M. HOENIG

Federal Reserve Bank of Kansas City

"For banks and other participants to survive and prosper in a more complex marketplace we will need to take several steps to ensure a stable financial system. The steps include perhaps separating banking activities that are consistent with depositor protection from those that should more appropriately be conducted through affiliates or other entities. Also, we must be sure that the Federal Reserve and other regulatory authorities have the ability to respond to threats that may be encountered in this new marketplace."

In case you think that's my speech today, I want to tell you that that's a speech I gave at the Levy Institute, at the Hyman Minsky conference, in April of 1994. If you're familiar with the movie *Groundhog Day,* I want you to know: I'm Bill Murray, and I'm living this nightmare again. And if you're not frustrated by it, then you just got into banking *[laughter]*. . . .

Just so you know, ladies and gentlemen, that I'm not right about everything, even though I felt like I was pretty much on target in 1994, the biggest blunder that I made was to say in that speech—and Martin, you were there, by the way—that some of the biggest blunders in financial history had been made in recent years. The fact is, they hadn't even begun. And I feel that if we don't take care of this issue, we have bigger blunders ahead.

I also want to point out that this isn't new in any way, even though I understand that new legislation has been filed. The chair of the House Subcommittee [on Economic Stabilization] made a comment with which I think we can all agree. He said our nation's too-big-to-fail policy presents one of the thorniest problems to resolve as we debate bank reform this year. That comment, ladies and gentlemen, was made in May of 1991 by Delaware's Thomas Carper, at a hearing on too-big-to-fail, [and] it's only one of many [similar] comments in that hearing of almost 20 years ago….

My point, of course, is that it isn't true that no one saw this coming. The problem on too-big-to-fail is that, at least since 1991, there's been no political will to take on the large financial institutions, and their booming profits, generous campaign donations, and tremendous lobbying power.

I came here today intending to join those who have focused on resolving the too-big-to-fail issue. I was going to use these comments from 20 years ago as evidence that we've not been willing to comprehensively address the issue, and that, as we face it again, it is time for action. I was going to then note several technical points related to how we might address the issue.

I do have some concerns that I'll note about the resolution process described in the Senate proposal. Primarily, my concern is that it bases the decision on whether to resolve a large firm on the Treasury Department's decision to petition a panel of three judges that have 24 hours to make a decision—a very difficult decision. If the panel turns down the petition, … the Treasury would need to refile, and subsequent appeals could be considered. Now, what experience tells me is that the urgency of the moment would most likely motivate politically sensitive officials to authorize a bailout of some kind. If time were of the essence—and it will be—and uncertainty the point of the day—and it will be—then we will bail out. So we need to address that.

The new law should require that any institution … deemed insolvent based on an established rule of law, [on an] objective set of criteria, be placed into receivership and liquidated, just like banks, if you'll forgive me, on Main Street—[for example,] the 350 I was involved with in the last crisis. I know that everyone has that goal, but we need to think about it now, carefully.

I realize also that in making these statements I may now be labeled as against regulatory reform in some way; however, I like to think it would be a stretch for anyone to accuse me of being in the back pocket of the big banks. I think they refer to me most often as a burr under the saddle, and that's the way it is. I've discussed in detail my views on too-big-to-fail. You've heard them referred to, and I direct you to our website, www.kansascityfed.org, to take a look at them.

Having said that, I want to spend the majority of my remarks emphasizing that getting to *yes* is most certainly not the same as getting it *right*. I'm going to focus on another component of the Dodd legislation that, if adopted, will rip the very core from the structure of our nation's central bank and continue the large-bank bias of legislators and regulators.

The Senate legislation takes the Federal Reserve out of regional and community bank supervision and the supervision of bank holding companies, and leaves the Fed as the supervisor of only some systemically important firms, the too-big-to-fail institutions. This will not only leave us ill equipped for the next crisis when it comes from some other quarter; it will [also] make these same very large too-big-to-fail firms even more powerful and more influential, and [it will do so at the] direct expense of thousands of regional and community banks located across this nation.

Why does it matter if the Fed gets out of community bank supervision, they ask me? Right now, the Fed is the beneficiary of economic insight gleaned from the close contact with 6,700 community banks, regional banks, and bank holding companies of all sizes located [throughout the country]. The input we gain from these contacts is absolutely critical in gauging the state of the economy and of financial conditions within regions…. These banks are the key lenders to their communities, especially small businesses. I came up through supervision and have the scars from past banking crises, and I can assure you that every bank in America is systemically important to its community, and every group of banks is systemically important to its region. Taking the Fed out of this supervisory role will send a clear message to those community and regional banks, to their customers, and the nation that community banks are not as important as their much larger competitors. The model for community banking, they say, just isn't viable. This is not a comment about the quality of the supervisors by any other of the regulators but a reality of disconnecting all but a select group of financial firms from the nation's central bank. By doing this, the Fed will be forced to gain any banking industry insight, not from 6,700 institutions located across the country, but from something over 20 firms whose interest, as shown from experience, is focused on serving a far narrower market goal. So even if we do manage to approve some way of comprehensively dealing with the issue of too-big-to-fail—and I think we should—we could still put these very firms at a distinct competitive advantage by giving them direct access, singular access, to the nation's central bank.

I cannot imagine why any elected official outside of the immediate area we're in would support this change. Taking the Federal Reserve out of the supervision of regional community banks and bank holding companies means that … in every congressional district across the United States, banks that now have the opportunity to be directly connected to important national policy and to policymakers will lose a significant part in that process and in that connection. And they will lose it to Wall Street, the same Wall Street whose inability to control its own appetite for risk and leverage is at the core of this crisis, the same crisis that put our economy into recession, the same recession that made conditions so difficult for many of these same community banks that have suffered as the jobless rate has jumped to nearly 10 percent. Meanwhile, of course, I should add that some of these largest institutions are back, allegedly thriving and expanding beyond their precrisis levels.

Further, the reason behind the Federal Reserve's regional structure was the Congress's recognition that our very large and diverse nation did not trust [confining] control of the nation's central bank to the financial and political interests of money centers. There was a distinct reason that the 12 regional reserve banks were located across the United States and established as private … institutions, under the broad oversight of a central government agency, the Board of Governors. It was to respond to the progressive and populist outrage that the nation's first two banks were narrowly controlled East Coast institutions.

Congress, in 1913, recognized the danger of consolidating power and designed an innovative system to create the strongest central bank in the world—and it has been that—by giving it the broadest base of any nation that has a central bank. So now, nearly 100 years later, some argue that the structure is just too complex, too confusing. I've heard many times that, if you were designing the Federal Reserve today, you wouldn't do it this way. I think that is correct, but only in the sense that I have no doubt that every state would want its own office of the nation's central bank—and they'd have a good case to make.

But instead of that, what the Senate proposes in the Dodd bill would weaken the responsibilities of the current regional reserve banks, mine included. I believe it would weaken the regional banks to the point that we would see, in our lifetimes, a consolidated, … monolithic, isolated central bank in Washington, D.C., with an office, of course, on or near Wall Street. Or, we will be left with a regional structure so weakened by a lack of meaningful responsibilities that the result is the same—an outcome that its founders would, I think, find to be an insult to their intent.

My ability as a Reserve Bank president to speak with an independent voice on important issues of national monetary policy and financial reform is based on the strength of my bank, its directors, and its role in the financial system of the region that I serve. It's a large region. I don't think that we, as a nation, should be willing to give that up anytime soon. Anyone angry about the idea of too-big-to-fail, or too-big-to-fail institutions and the role they played in creating this crisis—the favored treatment they received, the influence they wielded—should demand a different outcome.

I think there is a troubling subtext to what we are seeing in Washington in this bill. The Senate legislation strikes me as a signal by Washington that further consolidation in the banking industry is desirable. This is dangerous and extremely shortsighted for our nation. Why? Community banks play a key role in the economic lives of their communities. In 2009, 45 percent of the banks under a billion dollars … in assets increased their business lending. That's quite a contrast to some others.

Finally, I recognize that critics say I'm concerned about the change in the central bank's responsibilities because it eliminates jobs in regional Fed offices, including my district. The fact is that the Federal Reserve has been more than willing to cut jobs when it makes sense…. Our bank eliminated hundreds of jobs—and, in the 12 banks, thousands of jobs—as we turned to a more modern payment system. Don't be confused: the effect of this bill will [be to] marginalize the Federal Reserves outside of New York and outside of Washington, and therefore, in time, will marginalize community banks across this country. This will further concentrate financial power within the country, and works against our history and our traditions as the most innovative economy in the world.

Let me summarize for you, in case I haven't gotten my message across yet, that as I look at … this crisis, what I see coming out of it is a Wall Street that's larger and more powerful than ever. I see where it is now going to have the focus of the central bank solely for the largest institutions. And it strikes me that something has gotten turned upside down in this process when community banks—which have their own issues but have worked diligently through this—have served their communities well….

My views have been characterized as [being part of] a turf battle. I'm going to admit that that's correct, and the turf I wish to protect, ladies and gentlemen, is called Main Street, and I make no apologies for it. Thank you all very much.

I'm happy to take questions. If I've stunned you and you have no questions, I'll catch my plane *[laughter].*

Q&A

Q: Thank you for your speech…. We have heard a few people from the Fed now, and there is something that's common to all of their speeches, and that is, the Fed should retain its regulatory authority, be it over community banks or over the banking system in general. But we haven't heard anyone who would admit that something had gone wrong with the Fed, that the Fed was very shortsighted, that it didn't actually see the crisis coming; or even if it did, that it didn't want to do anything. That's what your colleague from the St. Louis Fed told us—that the central bank doesn't want to go in and disturb the banks when the banks are making a profit.

On top of that, we haven't heard any proposals as to what the Fed will do if it continues to be the regulator for the banking system, what it would do differently—not to solve the problem after a crisis has already occurred, but to stabilize the system and not allow crises of such proportions to occur in the first place….

TH: I think that's a very good question, but let's break it out a little bit. First of all, as far as our supervision of community banks, it has been fairly rigorous. In fact, most of the objections have been in terms of unfairness, because they've been supervised pretty steadily over this period as compared to some other banks. So it's not a uniform statement that I would accept, but I do understand that it is an issue.

Let me take a step back from that. When I spoke here in 1994, these were the issues that I outlined—that this *could* happen. And we still, after that crisis, went on as a nation—not just as a central bank, but as a nation—with great admiration for the free market's [ability to] discipline itself. In 1999, we passed the Gramm-Leach-Bliley Act that took away the Glass-Steagall Act. That's not a regulatory issue; that's a statutory issue. So we opened up the markets even more…. I gave a speech then saying I thought what would happen was—that we were going to have megabanks, and that when we had a crisis they would be too big to fail. That speech is out there. So it's not that we didn't see this….

We used to have rules. You had loan value limits—it was in the statute. We had clearer leverage ratios. But we changed that for Basel because of this new environment that you could somehow magically classify risk. Therefore, these firms, over time, levered up unbelievably, from 15, to 16, to 20, to 21, to 30-to-1. Now, … with Gramm-Leach-Bliley, you had what we referred to as "Fed lite"—[in other words,] the markets would take care of it. And we were not forceful enough—*we*, the central bank; *we*, the Comptroller of the Currency; *we*, the Federal Deposit Insurance Corporation—*we* were not tough enough. In hindsight, but even at the time, there was some understanding of that—and even in some of the other banks.

I was a commissioned examiner, and … when you do guidelines rather than rules, there'll be a whole debate about it—let me tell you, a guideline is an opportunity to engage in a debating society exercise. I'll take something at a community bank level, commercial real estate. I'm an examiner. I go in. It has a portfolio of commercial real estate. I think it's highly concentrated as compared to capital. I say, "This is a concentration of credit." They say, "Lookit, this is what my market is. Look at the performance of this portfolio now. I've got no past due, a very small past due. It's earning, it's good, I can reserve against it, and if I need to, I can sell this stuff into the market." How do you classify it? It's performing. There are no rules on concentration limits. So you have a debate. You say, "Yes, there are risks. We're going to rate you down." They say, "You can't do that—look at my earnings."

[Then] the crisis comes. The value of the real estate goes down, the cap rates go up, and things start to fall apart. And the examiner, of course, is now saying, "Well, here's what happens. Your cap rate's gone up; the market is down. Put it in reserves. Take your losses. Your earnings are gone: cease and desist"—and maybe failure. That's procyclical. That's what happened here.

Now, if we're going to think about this, we're going to go back and say, all right, what did we learn from this? Yes, we need to have strong examiners because central banks need to swim upstream; that's part of what we're assigned [to do]. So, number one: we have to be more forceful in our own analysis. Number two: we need some rules. I am very strongly of the view that we need clear, firm leverage limits. You have to be very careful, not only with the number, but with the quality; in other words, assets to tangible equity—here's the maximum you can be. And you already see it—I saw it in the paper yesterday: "Well, if you do that, you're going to limit the growth of the companies. You won't be able to provide credit." And the answer is, that's right. That's exactly right. That's *counter*cyclical. Because when the boom happens, then you hit the cap. If you want to do more, you've got to raise capital—*real* capital, not this Goodwill stuff that goes away in a blink; *real* capital. And you need to give the examiner the tools that say loan-to-value is 80 percent—that's too high, but at least it's a guideline that says you've got to have some skin in the game. And you go from there.

Also, concentrations: we put out guidelines. I will tell you, I was involved in 2004–05 with [formulating] the … guidelines for concentrations of commercial real estate, and the blowback pinned me against the wall, because it was constraining credit and growth and prosperity. But the fact is, it was also creating unbalanced risk.

So, yes, we need to go back, and we need to learn from this, and we need to have some rules—and Congress needs to help us with that. We also have to have some understanding that central banks and regulators swim upstream, and they have to do it with force. Then, I think, we'll have better outcomes next time.

Finally, and importantly, we have to get rid of too-big-to-fail. If an institution of the size of some of the institutions … that were in trouble … had been closed and broken up, then you wouldn't have quite the increase in concentration in this country that will do us harm.

I will tell you one final thing: there is something to market discipline. You know those banks in Oklahoma in the '80s that failed? I worked Penn Square that weekend. Oklahoma has its issues today, but it's nothing like it was in the '80s, because they remember what that crisis was like, and what failure was like, and what it did to their communities. They've been much more responsible lenders. And, of course, we as supervisors in that area have been much more firm [as a result of] the experience.

So that's the process. We need to learn from this. Yes, mistakes were made—*by everyone*. All right? We can point fingers or we can go forward, and I'm for going forward, because I think there are pretty clear steps we have to take.

Q: First of all, I want to thank you for the vanguard of leadership that you're showing in this set of issues. We had a social consensus that we might say we unconsciously migrated into, and all of your work is challenging the legitimacy of that consensus and really asking us what financial institutions do in service to society, and what their role is.

My question relates to the notion of opacity. You talk about supervision, examination, capital. It's awfully hard to find those things, to monitor those things, and detect them when we allow complex, opaque instruments. I guess I'll zoom right in on the questions of … off-balance-sheet entities and derivatives reform, and where your thoughts are there.

TH: … Number one, I'm very, very supportive of bringing these derivatives out of the dark and onto an exchange. That's where they belong; that's where the market can work, and where some of the, I think, inappropriate things can be stopped….

Now, there's a big … discussion about nonfinancial companies that want to hedge, and the [idea that the] margin requirements on that will interfere with their ability to hedge their own risk. I understand that, but that should not be the thing that stops bringing so much of this out of the dark and onto an exchange where it belongs. So I'm very clear on that.

On the others, off-balance-sheet is a hard one to do, but I think you should never be able to offload 100 percent. You should always have to hold some. You do that in smaller banks with certain kinds of SBA [Small Business Administration] guarantees and so forth: you keep a part. It keeps you focused. And I think that should be something that we do, and I think we can do it, and we should do it.

I will also tell you … that I'm a very strong supporter of the Volcker Rule. I just don't see how the complexity can be allowed, in the following sense. We give these franchises for payments because of their importance to the economy. The appropriate working of the payment system is critical to any economy. So they have this franchise, they have this special place, and they have the role of intermediary. When you then complicate that by trading for your own account … You can say all you want about hedging your positions and so forth; that can be dealt with outside. I mean, you can do those things; you just don't have to have it inside. When … we have a discussion—we, the general public, if you will—and we're kind of outraged by the fact that someone gets a $100 million bonus, or is at least questioned about a $100 million bonus, because they made so much in proprietary trading, you know they were in an open position. They say, well, it's really smart, and all that. Well, really smart people are what brought us this crisis. I don't think that's enough. I think you need more than that…. I know that Richard Fisher was talking about breaking them up. I would do that. I don't see that anywhere in any of this legislation, but I think this country would be well served with more, smaller institutions. Adam Smith thought so. So do I.

Q: With regard to keeping the Fed regulating the regional and community banks, we already have the OCC [Office of the Comptroller of the Currency] and the FDIC doing this. So what, exactly, does the Fed add to the activities of these other regulators?

TH: That's a great question. First of all, have you ever been in a crisis with a community bank? I have. I've sat on the desk and had to make decisions about lending. It's not just the New York banks that need the Fed to provide them liquidity. I've got 800 banks in my region that, over time, through an agriculture crisis or an energy crisis, have to have liquidity. I have examiners who understand the banks, who can go in and look at the collateral, and [the bankers] say, well, just rely on the comptroller. In a crisis? They've got their hands full. They're not going to do that. So [the examiners] do it. They gather [the information], and we can make the loan or not make the loan, based on … whether they're viable. We actually have to make the decision whether they're viable. And we do it. I can't do it without staff who know the institution and the business, and can help me make a judgment. That's number one.

Number two: a former vice chairman said, broadly, that she'd never seen banking examination information come into the FOMC [Federal Open Market Committee]. I disagree: I have. I get briefed before every FOMC meeting—not just by economists on the regional economy or the macroeconomy, but by some pretty darn good examiners—about what's happening in commercial real estate now and these banks. What's affecting their ability to lend or not lend? What's the capital pressure they're feeling today that might affect our region's economy going forward? That's how I use that information. Without it, the central bank of the United States can't be the central bank of the United States. [The information] is going to be [gathered] where you put them; with the largest 20 or so banks on Wall Street, and not across the country, the intelligence gathering will be limited.

Now, can you get it from the OCC or the FDIC? We all know how that works: when they're able to get to it, not on an ongoing basis. It just doesn't work. I'm not saying they don't have a legitimate need, but I am saying that *we* have a very legitimate need to be involved in supervision in this country. We have been for 100 years; it's served us well, and it will serve us well in the future. It won't serve us well to take it away. And it won't serve those banks well, and it won't serve this country well. I have no hesitancy in saying that.

Q: You mentioned commercial real estate several times. What are you and your staff seeing in the field now in [terms of the] commercial real estate held by these banks? Have we seen the bottom in defaults, or are they still accelerating?

TH: Here's what we're seeing: we saw an increase in the fourth quarter, and we're still seeing high issues with commercial real estate. But it's a little different from the last crisis. In the last crisis, in the '80s, we had two issues hit us at once. We had the recession—and what a recession does is, it empties out buildings—but we also had in that crisis a major increase in the inventory of commercial real estate. We don't have that [in the current crisis].

There are a couple things you've got to keep in mind here. First, when you say "commercial real estate," you've really got to begin to break it down. There are construction and land development; these are the most difficult that we have, because when you hit a crisis, you've got nonproductive land. It's sitting there idle. You've got to either sell it or take it into other real estate if the borrower defaults. That's the most likely place they're going to default. We've watched that pretty carefully, and that, I'm beginning to think, has peaked, because we're seeing some sales in the other real estate category in these banks. In the other—buildings—what we've done is, … even though the cap rate's gone up and the value's gone down, if the cash flow is still there, it's a little bit like mark to market, so you don't force them to take it to what the appraised value is. You do the analysis, and then you may not have to take the whole loan off into other real estate or write it down.

To answer your question, I think we've peaked. A couple of things we're seeing: in the class A space, we've seen the cap rates come down somewhat. The class B and C, of course, [are] going to take the longest to work themselves out; but in class A, we're seeing some movement. In [terms of] land, we're seeing bottom fishers—they're beginning to pick up that land, we're seeing that turn a little bit, around our region at least. So I'm hopeful that this is the peak, but … that stuff has a lag, so we'll still have banks under a lot of pressure. But as I said in my remarks, there are a number of banks that have managed that pretty well, and they are still making some small business loans. They're pretty cautious about commercial real estate because they are afraid of what the examiners might do if they bring that on and move their concentration numbers up. If it does pay off, then they're in a better position to add; but they're pretty cautious, and that is constraining credit to some degree.

Q: Everyone knows that the institutional mandate of the Fed is to be the lender of last resort. But I seem to have noticed that in the last two years the Fed has become a market maker of the last resort. Is this observation—I don't know if you think it's accurate, and if it is, will you tell us what you think the long-term implications are?

TH: It's a very good question. We have brought mortgage-backed securities onto our balance sheets—I think that's what you're referring to. That's a difficult decision that we made in the middle of the crisis, to support, if you will, the markets broadly. A judgment was made, and it is a credit action.... I can't speak for everyone else, but certainly *I* know that that is very exceptional, and not something you want to do, because it brings a lot of baggage with it—as we've learned. So we've done it, it's there, it's something that we have to be mindful of and want to eliminate as reasonably as we can. That's what the whole exit strategy discussion is about. My view is, we should exit as *deliberately*, if I can use that word, as possible. We're there now, so I don't want to disrupt the market by quick sales; but I also want to leave the option open for taking that off our balance sheet in more than just an amortization way. But where the market can absorb it, we should get our balance sheet back down to less than a trillion dollars, to allow us to engage in short-term securities transactions for monetary policy once again. So it's what we've done. It was done in a crisis, it should not be repeated, and I hope by taking care of too-big-to-fail and other issues, it won't be repeated.

Q: I, too, want to associate myself with the remarks of thanks for your leadership in the discussion of so many issues. I would like to ask you a question, as a long-term Fed watcher, about reserve requirements and the fact that the abandonment of quantitative tools of monetary policy in place of capital as a market enforcer obviously did not work. So going forward, as the Fed looks at its future and deals with its current level of excess reserves, I am wondering if you will go back and make reserve requirements, adjusted for all the changes that have taken place in the markets over this period of time—if it will once again become a tool of monetary policy.

TH: You guys ask good questions. Here's how I look at it: I've thought about that myself in terms of why would you try and neutralize excess reserves by bringing them in under various efforts. Why not just increase reserve requirements and not pay interest on reserves? But the problem here is, when you're in the middle of dealing with the problem to bring back some old tools, it's very difficult and very complicated, because one of the things that's often talked about—and I understand it completely—was this whole thing of the 1937 issue, where we did have reserve requirements, there was a lot of liquidity out there, and they were nervous about inflation. So they raised the reserve requirements to remove what they thought was excess liquidity, and tanked the economy. Just the discussion of required reserves right now, I think, invites uncertainty, and could undermine efforts to try and get the economy back on track.

Having said that, once we get through this, then I think the idea of required reserves, with all the issues around it, needs to be revisited with some deliberateness and care. But I would be reluctant to do it now, because it creates uncertainty, and we don't need uncertainty right now in my opinion.

Q: If you had all this information, as you say you did, from the community banks … how do you explain to people why you couldn't have been more effective? To add to that, Alan Greenspan said last week in Washington that we can't just stop with a *boom!* because the Congress won't let us, basically; and other people have said that. So can you explain the sequence here? If you saw things going out of line, are you too lone a voice, or is the political pressure just too great, to stop what's going on?

TH: First of all, speaking for the community banks in terms of our role there, … this crisis, to this point, hasn't been near as traumatic as the crisis in the '80s. We were, in this case, supervising some community banks—we were more proactive. We did have those tough discussions about concentrations, about making sure they had the right reserves, and so I think there have been positive outcomes from that. I mean, a cycle's a cycle, and commercial real estate is under pressure; I can't deny that. And it has failed some banks, there's no question. Those who went the furthest took on the most risk…. I was involved, and I mean literally, … in closing 350 banks. In our region right now, that number is still well under 25 or so. Now it's going to go up, but it's [still] not that kind of crisis.

To your question, though: there is a lot of political pressure when you do that, for anyone—for the comptroller, for us. But I do understand that the central bank's role, as I said in my remarks, is to swim upstream. That's not easy. You get eaten along the way sometimes; but you've got to do it. We have to learn from this, and I think it helps to know that the lessons are forgotten. But usually, a generation forgets those lessons. Then, because we did back off from a lot of rules—capital rules, and this sort of thing—it weakened our stance. I think now the idea is to strengthen those, so that even next time, it's less. But human nature being what human nature is, and booms being what booms are, we are going to have another boom at some point, and we need to … give our examiners the backing to swim upstream—and then swim upstream. I think we've done it pretty well with community banks—not perfectly, and we have more failures coming, but … unless I'm misreading the economy, I think we will get through this with … [a lesser] degree of problems than we had last time.

Q: I want to take you from the regional to the global. You mentioned in your introductory remarks that in 1991, presumably with the FDICIA [Federal Deposit Insurance Corporation Improvement Act], you had a whole regime of rules and regulations to kind of address for the first time the too-big-to-fail issues. You had prompt corrective actions, you had leverage ratios, et cetera. Then along came Basel II. You've implied already that you felt that this was weakening your regime, and in effect the American regulators tried to limit Basel II to just 20 or so institutions. Now Basel II is getting redone as Basel III, including some of the things that you were talking about, like countercyclical dynamics and so forth. Do you expect the Fed to be more sympathetic to Basel III in terms of having a global regulatory regime? It also applies, again, to the systemically important institutions….

TH: I wish them luck on that…. They talked about Pillar I, Pillar II, and all this stuff. My approach is a leverage ratio that's … simple, understandable, and enforceable.

I used to be pretty good at math. I don't think I am anymore, but I tried to work through some of that, and it was pretty dense in terms of the Basel calculations and so forth. But for me it needs to be simple, understandable, and enforceable. Simple is how much asset, and how much tangible equity is behind it. And I know one thing from experience: the higher that gets—from 10, to 11, to 12, to 15, to 20—the more likely I'm going to have problems with you. Then what I'm going to do is say, here it is; I'm looking at it. I'm going to have my examiners go in and ask what's in that 20-to-1 or 30–to-1 or 15-to-1 [ratio], whatever it is. And if it's a lot of assets that are not as liquid, I can start the underwriting standards, and I'm going to classify them; I'm going to say that's not enough capital. That's the process. When you do it with formulas and this sort of thing, it helps having what I call benchmark. But I like leverage ratios. I've always found them reliable. I've seen them where … you have a 15-to-1 [ratio], and he has some kind of securities—heavy securities. I go in, I look at it, I say okay—and I watch it. He can have 15-to-1 or 20-to-1, and it's junk. It's risky stuff. And I will tell you, the examiner knows. I go in, and I ask you a question, a CDO question, and you can't answer it, I know you're in trouble—right? So then I'm going to push harder. That's how the regulatory process should be. Now we've made it so complicated by merging commercial banking with investment banking that that's become more difficult, but that's the way it is: you go in and you look at it. And I don't care if you're Goldman Sachs—because you are now a bank holding company, Goldman Sachs—I want to know what your leverage ratio is, and I want to know what you have inside there, and if it's something you can't explain to me that I can understand, … then I'm going to give you a hard time. That's the swimming upstream that's so hard to do. Because you're sitting there, you're this examiner, and you've got your suit off the rack, and they've got their tweed, custom-made, I-know-everything suits—it takes guts and training, and that's what we're supposed to do. I've seen it.

Q: When you talk about the bifurcation of the supervision of the banking system between the superbig banks and everyone else, do you see any risk to the broader access to credit in the rest of the economy with that sort of split on the supervisory side for small- or medium-size businesses or individuals?

TH: I think unintended consequences are very likely here. I'll give you an example in the Midwest. We have some really fine regional banks, highly regarded in national reviews and so forth. You go to a major business, a global business in Kansas City, and you say, "All right, now, only these banks are supervised by the central bank. These banks are systemically important." So that business says, "All right, I can put my money with you, a regional bank that's highly regarded, but I know if you get in trouble, they're going to close you down. Or, I can put my money over here, where they're designated as systemic, and despite what they've said, I doubt that they will [close it down], I'm going to go with them." So there's a competitive disadvantage. The data are in now, pretty much, on the effects of too-big-to-fail, this last round giving the major institutions thought to be systemically [important] a funding cost advantage, and it has been to the detriment of the community banks…. What's the effect of that? The effect of that is, in the last 15 years, the concentration of financial resources in this country has doubled. It used to be 35 percent; it's now 70 percent. I hate to use a teenage term, but *duh*. I mean, what do you expect? You gave them a tremendous advantage. And I think that's unfortunate.

Q: What is your view in terms of breaking up all the big banks? We've heard throughout the conference that $100 billion is kind of the ideal maximum size; then, how do you absorb all the problem banks? Are there hundreds of banks that are going to have difficulty finding a home?

TH: To clarify your question, you mean hundreds of banks that are less than $100 billion in size?

Q: There are hundreds of banks, totaling $1.1 trillion in assets.

TH: The community banks?

Q: Community banks that have Texas ratios—ratios of nonperforming loans to equity in excess of 100 percent.

TH: There are hundreds of banks that are in difficulty—they're on someone's problem list. I agree; but there are still thousands of banks that are not. So you have the ability below that $100 billion to accommodate mergers and acquisitions. Also, in a failed bank, when you're below that $100 billion—and there's more of you—there are opportunities then to have other investors; other companies come in and acquire other banks who can acquire and merge…. In this country we still have a lot of new charters that start up, and build, and safely, over a 25-to-30-year period—in economic times that isn't a long period—grow from a new bank to a $10 billion organization, and can absorb and be absorbed.

I think that the economy itself will do that…. I'm familiar with the study that you're referring to, and I don't think the solution is to allow them to get larger than what the returns, in terms of economies of scale and so forth, are as a solution to problem banks. I think there are enough well-run banks, in this country at least, that can do mergers, can do acquisitions, can put capital funds together to deal with problem institutions. We've done it, and I think pretty well over time.

Thank you all very much. It's been good to be with you.

Sessions

SESSION 1

What to Do with the "Too Big to Fail" Doctrine: United States and Europe

Philipp Hartmann; Bert Ely and Bernard Shull

MODERATOR:

JOHN CASSIDY

The New Yorker

PHILIPP HARTMANN

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JOHN CASSIDY noted that his book *How Markets Fail* (2009) included a chapter about Hyman P. Minsky and is a finalist for a Pulitzer Prize this year (showing an openness to economics generally, and perhaps to new types of economic thinking). He also noted that George Soros's recent launching of the Institute for New Economic Thinking focused on balance-sheet recessions, which align with the approach of Distinguished Scholar Wynne Godley and other research within the Levy Institute. He further noted that "too big to fail" is a serious problem with two basic issues: (1) in terms of economics, it shows that the incentive structure is broken because firms have taken on too much risk and created problems such as moral hazard; and (2) in terms of politics where too-big-to-fail is an accepted tenet, it means that the economy may not be sustainable, since the public opposes the notion of bailouts.

Two ways to tackle these issues are a credible regulatory regime (and resolution authority) and breaking up the firms. These options solve some problems while creating others. For example, Wall Street spends more to overcome regulations than the regulators are paid to enforce them, and there is also the issue of capture (e.g., the Fed had authority to regulate the mortgage market). The breakup solution poses questions of setting limits and guaranteeing heterogeneity in the system.

PHILIP HARTMANN focused on macroprudential supervision and how to establish the analytical underpinnings and control the risks of systemic financial intermediaries. He noted that Minsky's vision played a very significant role in terms of systemic risk. He also noted that his presentation reflected his own views and not those of the euro system, such as the ECB.

A simple definition of systemic risk is when financial instability becomes so widespread that it impairs the functioning of a financial system to the point where economic growth and welfare suffer materially. Hartmann outlined three main "forms" of systemic risk from the point of view of policy: contagion, aggregate shocks, and the endogenous buildup and unraveling of widespread imbalances (Minsky). Moreover, this type of risk involves all components of financial systems, including their relationship with the overall economy.

Macroprudential supervision relates to public oversight that aims to identify and contain systemic risk, and the central banks seem to have a comparative advantage here because of their long tradition with macroeconomic and systemwide analysis. Macroprudential regulation is a broad (new) policy approach relating to public regulations that aim to maintain systemic stability. Microprudential supervision oversees specific intermediaries or markets.

Hartmann proposed a European Union (EU) structure with respect to macro- and microprudential supervision. Macroprudential supervision would be the responsibility of the European Systemic Risk Board (ESRB), which consists of ECB governors together with the European Commission and the chairs of the three authorities making up the European System of Financial Supervisors (ESFS), which is responsible for microprudential supervision. The ESRB would issue early risk warnings on emerging systemic risks and make policy recommendations to the EU countries, the Economic and Financial Affairs Council, and the ESFS.

In terms of systemic intermediaries, the standard responses to the "too big to" or "too complex to" problems are to proceed as before, to initiate better and stricter regulations (e.g., capital and liquidity buffers) and supervision (e.g., risk management and stress testing), or to invoke separation (e.g., the Volcker Rule), ring fencing of risky activities, and narrow banking. More innovative ideas include captal/liquidity buffers that are dependent on size and complexity, private capital insurance, access to a pool of (private and public) funds associated with a Tobin tax, contingent capital, living wills (for winding down internal institutions), and strengthening competition policy in banking.

Hartmann concluded that a broad policy response required a fully developed macroprudential approach, since size and complexity are only a subset of the issues. He warned that there could be negative trade-offs (particularly in Europe) regarding proposals to break up the financial system and resolve the crisis, such as the cost of business efficiency, competitiveness, and overall economic performance during tranquil times.

BERT ELY maintained that the large financial institutions are here to stay and that designating institutions as too-big-to-fail is a highly contextual process. He observed that the financial system is interconnected and global because of electronic technology, which has made it easier to arbitrage government regulation. He stated that it is financially and economically destabilizing to impose losses on creditors of insolvent financial institutions, since this response increases the likelihood that the creditors would flee. According to Ely, global financial regulation is a pipe dream because it is unenforceable, as reflected by the Basel process.

Failure in the context of too-big-to-fail means that stockholders and subordinated debt holders are wiped out, directors are replaced, senior managers are fired, and unsecured creditors and counterparties may be wiped out. Protecting the subordinated debt holders in the case of Fannie Mae and Freddie Mac raises questions about the suitability of subordinated debt as an element of capital structures.

When a too-big-to-fail financial institution fails, one approach is outright liquidation. The problems with this approach are that it depresses the asset value of other institutions, while also destroying going-concern value. A second approach is to sell the failed institution in its entirety; but this is not feasible, as no entity will have the capital to buy it. Moreover, this approach reduces competition and increases concentration within the financial industry. A third tack is to dismember the institution and sell its businesses (e.g., Citigroup), but this process takes time and increases the likelihood that the unsecured creditors and counterparties will flee. Therefore, unsecured creditors should be protected against loss and become, in effect, guaranteed in order to buy time.

The public policy problem is that unsecured creditors do not pay in advance for the protection they receive when institutions fail. This ex post protection creates moral hazard because a third party (i.e., taxpayers) provides the protection free of charge. The problem is compounded by the uncertainty as to when and which unsecured creditors will be protected. Such uncertainty produces systemic instability as markets freeze and unsecured creditors refuse to roll over their credits and counterparties demand collateral (e.g., Lehman Brothers and AIG), leading to a run on large institutions. Thus, unsecured creditors and counterparties need to be protected against loss in order to maintain systemic stability, keep markets functioning, and minimize economic losses.

`Ely proposed that the moral hazard implications of protecting unsecured parties from insolvency could be dealt with only if there are explicit fee-based ex ante provisions for the liabilities that are paid for in advance. The willing guarantors of these institutions should be banks and other private parties, since this approach fully privatizes both gains and losses. Moreover, the guarantee fee should be market-based rather than established by government fiat. While FDIC insurance is a cross-guarantee system, its guarantors are draftees (not volunteers) and its deposit insurance premiums are not market based. Ely suggested that participants read his Levy Institute Working Paper no. 141, titled "Financial Innovation and Risk Management: The Cross-Guarantee Solution" (May 1995).

BERNARD SHULL noted that past legislation and regulation have not solved the too-big-to-fail problem, and that it is unclear whether current proposals will be effective. He observed that too-big-to-fail has a crisis face and a prosperity face that are interrelated. During a crisis, when large financial companies fail and a systemic threat materializes, there is anxiety in balancing the financial and moral hazard costs against the benefits of government support. He recalled that Minsky recognized both the costs and benefits of such support. During a period of prosperity, large companies that are perceived to be too big to fail can obtain funding at relatively low rates, which encourages greater risk taking that can contribute to subsequent crises. These low rates also provide a competitive advantage over smaller rivals in terms of higher growth and profits; thus, augmenting market power and facilitating oligopolistic behavior in concentrated markets. Whereas a crisis produces reform, prosperity produces apathy within Congress and in terms of regulatory oversight.

Over the past quarter century, the number of independent banking organizations has been cut in half due to mergers and acquisitions, and there has been an increase in national concentration (the proportion of bank deposits held by the five largest banks increased from 12 percent to 43 percent). Since 1991, for example, Bank of America has been involved in 18 mergers, making it the largest banking company in the United States. Although each merger is reviewed by regulatory agencies such as the Federal Reserve in terms of (local) competitive effects based on current antitrust standards, none of the reviews consider the anticompetitive implications (or the systemic threat) of establishing or augmenting a bank that is too big to fail. Moreover, no large bank mergers have been denied by government agencies since the mid-1980s.

Shull outlined his proposals for mitigating the effects of bank mergers based on his book, coauthored with Gerald Hanweck, *Bank Mergers in a Deregulated Environment* (2001). These proposals call for a more complete banking agency analysis of proposed mergers that includes a too-big-to-fail factor, negative weights with rising concentration (i.e., amending the 1994 Riegle-Neal Interstate Banking and Branching Efficiency Act), the restriction of negotiated divestitures (to moderate the incentives from government support), additional capital and higher insurance, and annual reports to Congress, including public hearings comparable to the Fed's monetary reports. We missed an opportunity to downsize failed banks in the 2008–09 crisis by merging large failing firms into large floundering banks, said Shull, thus exacerbating the problem.

SESSION 2

Financial Regulation Proposals

Gretchen Morgenson; Martin Mayer, Michael Greenberger, and Eliot Spitzer

MODERATOR:
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ELIOT SPITZER
54th Governor of New York

GRETCHEN MORGENSON observed that two years have passed since the U.S. government's extraordinary interventions in the financial markets. Since then, however, there have been no new protections put in place to prevent another disaster. Thus, the country remains at risk to future events in which gains are privatized and losses are socialized. Moreover, effective reform that will protect taxpayers from future government bailouts seems far off, leading to much frustration and dismay by many people.

MARTIN MAYER acknowledged his prescience about the current financial crisis by referring to the last paragraph of his book *The Fed* (2002). The Lehman disaster demonstrated that the Fed and Treasury did not understand how the U.S. financial system worked when they let Lehman go and came to the rescue three weeks later with a special facility for commercial paper. These agencies did not realize that there was a web of credit overlying the banking system, and that this credit was part of the system's foundation. Moreover, when the agencies did know what was going on, the people in charge didn't know what it meant and panicked, so the whole (global) system subsequently seized up and collapsed.

Blame for the collapse remains with the shadow banking system. This notion is strange, said Mayer, since the system was financed through the regular banking system. The Fed has a supervisory role over all financial markets, including primary dealers such as Lehman Brothers, Goldman Sachs, Morgan Stanley, and Bear Stearns. The Fed and the comptroller did not understand that in a crisis banks would respond as they had in the past by pulling back and absorbing as much liquidity as possible rather than making loans. We will be paying for this incompetence for a long time, said Mayer.

Mayer stated his third law of financial engineering: risk-shifting instruments shift risk onto those less able to bear it. He observed that there is virtually no understanding that the loser in a bank failure is the unprotected borrower (i.e., the banker), because everyone worries about the bank's depositor (creditor). One should have a more holistic view of these relationships, one based on some science and a sense of history.

In the case of Continental Illinois, the 10th-largest U.S. bank, the FDIC bailed it out in spite of doubtful deposits because the comptroller was concerned that it was too big to fail. Mayer thought that the best perspective about bank failures was expressed by Andrew Sheng, formerly of the World Bank and a past chairman of the Hong Kong Securities Commission, who pointed out that the losses of a decapitalized banking system are an implicit fiscal deficit (leading to contagion) whether you like it or not. The main problem is finding someone to lend to the banks whose own lending is necessary to support the economy.

According to Mayer, Sheng's *From Asian to Global Financial Crisis* (2009) is the best book about the current financial problems. Mayer criticized discussions of the crisis that represented a closed loop within a national economy because they overlooked the immense size of the carry trade that is backed by very low U.S. interest rates. What's to be done if the carry trade suddenly reverses? Moreover, giving up fractional reserve banking in favor of quantitative easing means that Fed funds are no longer a matter of value. And everyone has Fed funds.

MICHAEL GREENBERGER noted at the outset that a credit default swap (CDS) is insurance. State efforts such as those in New York to treat CDSs as insurance were rescinded, however, and a federal bill to regulate CDSs included a provision whereby state insurance law would be preempted with regard to swaps. He focused on over-the-counter (OTC) derivatives and the damage that this unregulated market did in leading to the economic and financial meltdown. Greenberger related his failed effort to regulate OTC derivatives in 1998 at the behest of Alan Greenspan, Robert Rubin, Lawrence Summers, and Arthur Levitt Jr. He also noted that the Securities Act (1933) and the Securities Exchange Act (1934) were only enacted when President Roosevelt used all of his political weight to get these bills passed through Congress.

The Commodity Exchange Act (1936) emanated from a White House recommendation to Congress, and it was designed to regulate futures (i.e., agricultural products) similar to the equity requirements on stock exchanges. This regulatory template, which was based on price transparency, federal supervision of self-regulation, and regulation of intermediaries, was accepted universally until President Clinton signed the Commodity Futures Modernization Act in 2000. While stockbrokers must be certified in a regulated environment, Greenberger pointed out that a swaps dealer in the unregulated OTC derivatives market does not have to take an exam.

Although the swaps market led to systemic problems starting in the late 1980s (e.g., Orange County and the failure of Long-Term Capital Management), Congress passed a law that something called a swap would not be regulated or need to be exchange traded, and it did away with the template for market regulation. Thus, there would be no federal fraud or antimanipulation, no private right of action, and no damages awarded even if the actions of swap traders were illegal. Because these instruments are often used for speculation, it was important that the Commodity Futures Modernization Act preempted state gaming laws. Since then, the OTC derivatives market's notional value has increased from $80 trillion to more than $600 trillion, or 10 times the world's GDP.

In the subprime (mortgage) market, synthetic collateralized debt obligations (CDOs) were created along with associated "insurance" contracts (credit default swaps, or CDSs) that did not require capital reserves. AIG, for example, was issuing these swaps and not putting aside any capital or collateral. Wall Street enabled people to short this market by developing the concept of insuring somebody else's risk, even though insurance law does not allow you to insure either something that you don't own or someone else's risk (see *The Big Short* by Michael Lewis). As a result, there were three naked (not owning the underlying asset) CDSs for every CDS that insured a real or synthetic CDO. When the financial industry and economy collapsed, the CDOs were worthless, but the insurance had to be paid. And the money that bailed out AIG went out the back door to companies like Goldman Sachs. Greenberger wondered whether the payment to Goldman Sachs was the result of a naked CDS.

Not only is it aggravating that we bailed out the banks but we also bailed out this casino-like atmosphere, said Greenberger. There is currently a debate before the Senate Agricultural Committee, which has jurisdiction over this kind of legislation. The Obama White Paper on Financial Reform tried initially to reinstate the New Deal template, but now the Treasury Department has exempted foreign exchange swaps (a $50 trillion market). Moreover, many Fortune 500 companies have objected to the proposed legislation because they use these swaps to smooth out their earnings and play with their tax obligations, and their exchange trading would be more expensive. Thus, the House bill that passed in December 2009 incorporates a number of loopholes.

Rep. Barney Frank, Chairman of the House Financial Services Committee, has stated that he would have regulated derivatives more carefully if he had it to do over again. The good news, said Greenberger, is that it has suddenly dawned on a bipartisan basis that people are mad at Wall Street and no one can feel safe voting against a reform bill. He concluded that all standardized derivatives must be cleared for capital adequacy purposes and exchange traded for transparency, antifraud, antimanipulation, and federally supervised self-regulation.

According to **ELIOT SPITZER**, the root of the problem is that nothing has fundamentally changed in Washington in terms of a new regulatory regime and the financial services sector. The premise was that the banks would be bailed out because we needed to do it, so money flowed everywhere as a result of mechanisms such as the Troubled Asset Relief Program (TARP) and low interest rates. The easy part was getting the banks back to a position of solvency.

Spitzer asked three questions: Who pays? Do we get reform? And, most important, Can we create jobs? Taxpayers have paid for everything (à la Mayer's third law of financial engineering) because they were the only repository large enough to cover the transfer. Since the CEOs, equity holders, and debt holders did not have to pay to rescue the financial industry, we have not changed their behavior or the fundamental asymmetry in the system. There should be a lawsuit based on unjust enrichment (a fictitious claim of profit) to return the bonuses paid during the applicable period. Spitzer questioned why this was not part of the reform packages and why this was not a contingency for receiving taxpayer subsidies.

In reference to his article "The Real AIG Scandal, Continued!" (*Slate*, March 22, 2009), Spitzer stated that the worst scam involved counterparty payments, such as the $12.9 billion of taxpayer money (100 cents on the dollar) paid out to Goldman Sachs's CDS that was almost identical to the company's profit last year. Treasury Secretary Timothy Geithner's explanation that the payment was based on a contract is mythical, and the government has flubbed in responding to the first question because the (undervalued) investment risk was not paid for properly.

We are not even close to reform, and too-big-to-fail should be too-big-*not*-to-fail, said Spitzer. These institutions are too big to understand or manage, so they are destined to fail. The rationale for large size is crossmarketing, and Mayer earlier noted that what used to be viewed as a conflict of interest is now viewed as synergy within the financial supermarkets.

Antitrust works, as shown by the explosion in investment, creativity, and innovation following the break up of monopolies such as Standard Oil and AT&T. It must be applied to the financial services sector based on function, size, and region (e.g., the Volcker Rule), in spite of fictitious threats by banks to move abroad if there is regulatory arbitrage. Other countries are seeking our leadership in developing an international standard to resolve the issue.

Self-regulation remains embedded in our regulatory system, but it has never worked and must be replaced by robust regulation. Spitzer related an incident during his term in office where a major financial company's defense was to agree with the accusation but confess that it was not as bad as its competitors. According to Spitzer, the company should have gone to the self-regulatory bodies and tried to deal with the (systemic) problem rather than lower its own standards of behavior.

Washington operates according to the Peter Principle on steroids, because it is easier to reward incompetence with more power rather than to figure out what is wrong (e.g., the Office of the Comptroller of the Currency [OCC]). What matters is who you hire, not what powers you give them, because the issue is a lack of will (e.g., the derivatives issue expressed by Greenberger). Spitzer accused the New York Federal Reserve as doing the most harm, and he called for a complete overhaul of its governing structure because it was at the epicenter of the crisis and failed. None of the board members understood what was going on, these members were part of the same club, and their selection is a joke, said Spitzer. For example, the CEO of General Electric was chosen as the public representative so when the New York Fed guaranteed the commercial paper market, GE Capital was the single largest beneficiary.

The way to unravel the regulatory structure is to issue subpoenas, but none have been forthcoming from the Financial Crisis Inquiry Commission. As owner of AIG, the taxpayer deserves to know what happened between AIG, Goldman Sachs, Treasury, and the Fed.

Spitzer spoke in favor of a centralized, localized, independent, and self-sustaining consumer protection agency. The problem is that the banks are turning the current situation into a litmus test in terms of all regulatory reform. While conceding the creation of a separate consumer protection agency, they are distracting everyone from focusing on the larger structural issues, such as targeting too-big-to-fail institutions in a meaningful way or placing someone at the head of the OCC who will enforce the law.

In response to the high unemployment rate and anemic job growth, Spitzer noted that the United States has lost ground since 1945, when it dominated other countries with respect to the rule of law, skilled labor, a middle-class market, and innovative products. Our significant structural problems have been exacerbated by the banking crisis and the failure of the financial services sector to provide a steady flow of capital to meet the needs of our economy. Thus, the epicenter of economic growth is changing.

SESSION 3

Fed/FDIC Regulation

Louis Uchitelle and Dimitri B. Papadimitriou; Jane D'Arista, Richard S. Carnell, and Ernest T. Patrikis

MODERATOR:
LOUIS UCHITELLE
The New York Times

JANE D'ARISTA
Political Economy Research Institute,
University of Massachusetts Amherst

RICHARD S. CARNELL
Fordham University

ERNEST T. PATRIKIS
White & Case, LLP

JANE D'ARISTA's view that monetary policy has a role in the crisis—there is always a macroeconomic context, she said—contrasted with that of Paul Krugman. D'Arista outlined the pattern of excess liquidity, low interest rates, the search for yield, more speculation, narrowing risk premiums, easier credit standards, and the buildup in unsustainable debt. The Fed paid no attention to (rising) credit even though its primary role concerns stability, and in spite of early warnings (2002–04) from groups such as the Bank for International Settlements. Thus, the central bank was complicit in creating the crisis, and there was both a monetary and a regulatory failure.

The Fed will have a future role as a systemic regulator but its monetary policy role is questionable, said D'Arista. For example, the Fed is reviewing new benchmarks respecting the federal funds rate, such as paying interest on excess reserves. The Fed is trying to solve the credit problem in terms of inflation rather than deflation, at a time when whole sectors of the economy (and small businesses) cannot get working capital.

D'Arista noted that interest rates affect demand, not quantity, and that reserves were once the major cushion for the financial system. She also noted that unwinding the rapidly rising reserves since the Lehman crisis has led to inflationary concerns.

The Federal Reserve is also complicit in the failure of banks to lend by paying fees on excess reserves. Moreover, the Fed is once again saving the banks with low interest rates (cheap funding) and reconstituting the liquidity trap, much like the banking system did in the 1930s. The Fed's proposal is wrong because it represents a huge subsidy to the banks that is paid for by the taxpayer, is procyclical, and is not a systemic strategy, since it places some financial institutions at a competitive disadvantage. D'Arista was not hopeful that the Fed would satisfy its systemic responsibilities as it attempts to normalize its balance sheet, rely on short-term interest rates, and avoid the necessary quantitative measures (e.g., limiting credit).

A simple, anti-inflationary quantitative strategy associated with (unwinding) the excess reserves is to raise the required reserves or impose reserve requirements on nondeposit liabilities and all systemically important financial institutions. There is no evidence that the Fed has thought these issues through or revised its role to bring it more in line with the evolving financial system (e.g., the interaction between monetary policy and the financial sector, and between the real economy and the financial sector in a market-based economy).

RICHARD S. CARNELL spoke about the incentives of financial regulators and the failure of bank regulations. The ongoing pattern is that Uncle Sam does what is recommended by the expert regulators and then vows reform when there is another financial debacle. Carnell maintained that regulators had ample powers to keep the banks safe but they did not use those powers adequately. Rather, there were perverse incentives to be lax in good times. Furthermore, regulation to ensure bank soundness has no political constituency until it's too late. Therefore, we need to deal with regulators' incentives and moral hazard in order to fix the system. The Geithner-Bernanke proposal fails to do this because it does not consider how these incentives work and places unrealistic faith in regulation.

Regulators had total access to bank information and sufficient powers to scrutinize operations, deny applications, and take other enforcement actions. According to Carnell, they should have increased capital levels, used risk-based capital standards to limit investments and curb concentrations of credit risk, limited banks' exposure to the largest financial firms, and required the largest banks to hold additional capital. These actions could have been taken regardless of the Geithner-Bernanke proposal. The required capital levels, for example, were set during the 1988 debt crisis, when there were regional recessions and many troubled loans. These levels were never increased, despite two decades of prosperity and record profits. There were also excessive interfirm exposures, while regulators such as the Fed and the Office of the Comptroller of the Currency subverted prudent congressional reforms by adopting soft, ineffective rules.

Regulators' perverse incentives arise from special-interest politics and the nature of banking, which discourages actions to protect bank soundness, the insurance fund, and taxpayers. Risky banking confers immediate benefits to the banks' owners, managers, counterparties, and borrowers. The costs show up slowly and are spread widely, so that most (unorganized) taxpayers pay little attention. Thus, the organized and motivated few (risky banks and their allies) exert the most influence. Furthermore, there is impaired accountability, since it is difficult for citizens to know if the regulators are doing a good job. The result is a leeway for laxity, which is more popular than stringency—until it's too late.

ERNEST T. PATRIKIS observed that very few people understand the nature of reserve banks and the structure of the Fed. In reference to his March 1 article “Supervisory Power Is Critical to Fed” (*Politico*), coauthored by John R. Dearie, Patrikis noted that the Fed’s firsthand knowledge of the financial institutions through which it conducts overmarket operations and extends discount window lending is critical to its effectiveness as a monetary authority. He proposed that Congress consider creating a second Federal Reserve Board vice chairman, to head the Fed’s supervisory program. He also noted that the House Financial Services Committee and Senate Banking Committee bills would keep things basically the same, except that the Fed would oversee the systemically significant ($50 billion or greater) nonbanking organizations.

Patrikis favored a single supervisor of all financial services, as in the UK (i.e., the Financial Services Authority), Japan, and other countries, as well as a federal charter of insurers. This approach would negate arbitrage (infighting) and regulation by other government departments in Washington. He also favored a single federal bank supervisor. These guidelines were proposed by Treasury Secretary Timothy Geithner and Senator Chris Dodd (D-Conn.), respectively, but both were immediately dismissed. Patrikis did not necessarily support the notion that the Fed and FDIC have such statutory authority because these agencies are automatically involved in lending to or insuring companies within their jurisdiction. Moreover, he did not care which government agency secured the role of supervisor because it merely represented a power struggle in Washington, and all government agencies, including the Fed, fail to supervise properly.

A potentially troubling matter regarding the financial structure is for someone other than the systemic supervisor to oversee the bank holding companies. According to the Fed, these companies are supposed to be a source of strength for their subsidiary banks, but this view is “dumb,” said Patrikis. Rather, the bank holding companies are a source of weakness, since they take dividends out of the bank and pay debt holders and shareholders. This relationship runs counter to the concept (and merits) of a universal bank.

Patrikis favored a modified Chapter 11 as opposed to a $50 billion (too-big-to-fail) benchmark for the resolution authority. Moreover, the notion that the resolution authority should be designed to punish shareholders and creditors, and fire management, is “incredibly stupid.” Management knows how to run the company, so they should not be fired. And rather than setting up a $50 billion fund, one should apply debtor-in-possession financing and try to enhance shareholder and creditor value.

Bank supervisors and the SEC cannot say that they do not know anything about the shadow banking system, said Patrikis, because the SEC is in charge of prudential supervision of broker dealers (e.g., Lehman Brothers and Bear Stearns), which, in association with the commercial banks, are the prime brokers for hedge funds and private funds. Thus, there is access to information that is overlooked. Moreover, the notion that we are now going to pay banks not to lend will not sit well with the American public.

SESSION 4

Minsky and the Current Crisis


Jan Kregel and Jeff Madrick; Jan Hatzius and Robert W. Parenteau

MODERATOR:

JEFF MADRICK

Challenge; Roosevelt Institute; and Bernard Schwartz Center for Economic Policy Analysis, The New School

JAN HATZIUS

Goldman Sachs

ROBERT W. PARENTEAU

Research Associate, Levy Economics Institute

JAN HATZIUS noted that Levy Institute data concerning the private sector financial balance framework has improved Goldman Sachs's ability to predict economic turning points. The company used this framework in January 2008 to show that the private sector deficit was 2 percent of GDP and the erosion in asset prices was leading to a sharp rise in the private sector balance, and therefore conclude that the U.S. economy was slipping into a recession. Not realized at the time was that the increase in net saving combined with the downturn in economic activity, the fall in asset prices, and high financial-sector leverages would feed on one another and result in the deepest recession of the postwar period.

The personal saving rate is currently just over 3 percent, despite the fact that household wealth remains at a relatively low level. This rate is lower than expected based on the current wealth-to-income ratio, but this relationship had broken down by 1990, observed Hatzius. A possible reason is that the strict separation between personal consumption and residential investment in the

GDP accounts is somewhat artificial. Since households care more about their financial balance than personal savings (the difference between disposable income and consumption as measured in the GDP accounts), the wealth-to-income ratio (taking into account residential investment) is a more useful indicator of the propensity to save.

The private sector balance, however, does not indicate the strength of the recovery. Historically, this recovery should be very strong (e.g., 4.6 percent in the first two years), but Hatzius forecast a slow recovery (about 2 percent) based on the international history of recovery after major housing busts. Although some indicators, such as the composite ISM manufacturing index and the real GDP growth rate, point to a fairly strong rebound, the positive effect of the inventory cycle is short-term and will likely peter out by midyear. Moreover, final demand has been increasing at only a 1.5 percent annual rate since early 2009. This U-shaped recovery mirrors that following the recessions of 1990–91 and 2001.

There is no sense that final demand will accelerate in spite of gains from retail sales and earlier upside surprises in housing, business investment, and consumer spending (contrary to the recent consensus). Moreover, the boost from fiscal policy, which has contributed 2 to 3 percentage points to the growth in real final demand over the last three of four quarters, will end in mid-2010. According to Hatzius, the relatively moderate growth rate in 2010 will lay the foundation for a healthy and longer-lasting expansion, with growth accelerating throughout 2011.

ROBERT W. PARENTEAU applied the financial balance approach to the eurozone. He noted that investors and policymakers have a limited ability to perceive macrofinancial balances (MFB), despite the fact that a simple MFB approach shows that the eurozone is on the path toward a Minsky meltdown and a Fisher debt deflation. Attempts at fiscal retrenchment are likely to be self-defeating because of the (unrecognized) paradox of public thrift. Moreover, such retrenchment will set off contagion via banks and trade that will ultimately swamp the European Union's (EU) core. What is missing is a price or policy adjustment mechanism that forces EU current account–surplus nations to reinvest in the productive capacity of deficit nations and avoid a Ponzi financing problem.

Following a recent speech by Lord Adair Turner at the Institute for New Economic Thought at Cambridge University, Parenteau realized why it was so difficult to get the MFB approach across to mainstream economists, investors, and policymakers despite forewarnings by the financial stability departments in central banks: we are dealing with a brainwashing "cult" that serves to perpetuate the interest of the powers that be, whether on Wall Street or in government. Part of the problem is that there is no coherent framework for analyzing macrofinancial instability, such as a stock-flow model. The International Monetary Fund's (IMF) financial stability tools and mainstream approaches failed to assess financial stability and prevent the crisis (e.g., the conclusion 18 months before Iceland's financial meltdown was that financial fragility was not a problem and the likelihood of a meltdown low).

Parenteau outlined what was missing from standard financial stability analysis. Sustained flow imbalances need to be tracked for aggregate sectors, industries, income distributions, and large institutions. It is necessary to pay attention to flow imbalances that build up as stock disequilibria on balance sheets over time, and to persistent balance sheet growth driven by rapid credit flows. Furthermore, do not assume that investors, rating agencies, and market-based risk indicators accurately reflect "true" fundamental risk conditions because they are biased toward the efficient market hypothesis.

Using the financial balance approach, Parenteau determined that there was a design flaw in the European Monetary Union; that is, the application of Stability and Growth Pact (SGP) criteria in concert with a floor to the fiscal balance. He identified policy straightjackets such as a common currency, a fiscal deficit floor (3 percent of GDP), and a one-size-fits-all monetary policy managed by committee. By resorting to the notion that the market knows best, the burden of adjustment rested on relative prices, private income deflation, and (national) product innovation. Thus, reducing fiscal deficits undermines the ability of the private sector to net save, making it more difficult to service and reduce private sector debt. As private loans sour, the quest for fiscal sustainability implies that bank risk is higher than government risk, and this leads to an unsustainable path for the growth of private debt that backs up through the banking system.

Improving the trade balance for all eurozone members would require a significant devaluation of the euro. Otherwise, when members submit to fiscal retrenchment and private income deflation, and attempt to improve individual trade balances, net exporting countries to the eurozone such as Germany and the Netherlands will be (negatively) affected unless new markets are found outside the eurozone. When the private sector tries to net save, another sector must deficit spend, or there will be a downward income spiral.

We are now encountering the paradox of public thrift, observed Parenteau. Tax hikes suck cash out of the private sector; expenditure cuts crimp cash flows for households and firms; domestic private income shortfalls lead to a contraction of profits and debt distress, signaling production cutbacks; tax revenues come up short; automatic stabilizers raise expenditures; and budget deficits miss required target levels, so larger cuts are demanded, further undermining private cash flows. The only way out is to deflate domestic private income and sufficiently enhance the current account, before private debt drags the economy into a Fisher vortex and Minsky moments show up in the banking system.

The case of Argentina shows that fiscal retrenchment in the midst of a major recession does not work. Ireland is now a test case, and Greece is likely to miss its budget deficit targets and risk being subjected to the paradox of public thrift. Parenteau noted that there has been no discussion about the private-debt–to-GDP ratios and that the European banks are the most leveraged banks in the world, with significant short-term debt. He advised that we short the euro and the eurozone banks and exporters that deal with the eurozone's periphery.

Possible routes forward include public debt restructuring (or default); depreciation of the euro; sustainable current account surpluses recycling through the European Investment Bank; repudiation and revocation of the SGP, a growth fiscal stance; and allowing the ECB to purchase public debt up to some inflation ceiling constraint à la Argentina's success post 2001.

SESSION 5

Beyond the Exit: Banks and Central Banks

Richard Sylla and Deborah Solomon; Peter R. Fisher and Kevin M. Warsh

MODERATOR:

DEBORAH SOLOMON
The Wall Street Journal

PETER R. FISHER
BlackRock, Inc.

KEVIN M. WARSH
Board of Governors of the Federal Reserve System

RICHARD SYLLA
New York University

According to **PETER R. FISHER**, we need to refocus on the stability of central bank and bank balance sheets, including the relationship between the banks. He noted that there has been a colossal failure of bank supervision in all aspects: the legal and regulatory regimes, supervisor and regulator behavior, and management. Moreover, the ideology of a self-policing mechanism in the form of risk-based capital did not work, allowing the supervisory (and central bank) community to overlook the quality of bank balance sheets. Thus, we need someone to apply brute force supervision of these balance sheets.

Fisher also noted that the pretext for bank supervision predates deposit insurance because bankers are tempted to chase wider net interest margins without properly accounting for the probability of default. The same brute-force supervisory approach and reserve guidelines should also apply to the underwriting of insurance and options. Furthermore, there has been a failure to apply lending and concentration limits to structured investment vehicles (SIVs) and conduits, or to police the boundary between banks and nonbanks.

For the past 50 years, the Fed's "bluff" was that it would not lend to anyone outside its own supervision—a position that runs counter to most other countries'. We must stop the Glass-Steagall argument at the discount window, said Fisher, and broaden access to anyone managing an active and liquid balance sheet. We learned from the crisis that the binding constraint is not about who the Fed lends to (e.g., Lehman Brothers) but rather what it is lending in order to control moral hazard.

Fisher imagined a world in which the discount window is not a political tool. In a crisis, the window should be available to a broad range of institutions, with some discipline around the definition of collateral. He contended that there will always be a Section 13(3) in the Federal Reserve Act because it has been used very aggressively and the Fed can't ignore using this loophole. Exiting the discount window will occur when the marketplace is no longer threatened by the expansion of an unlimited Fed balance sheet (which was the right thing to do during the crisis). However, Fisher did not know how to get to the point of exit.

KEVIN M. WARSH stated that the nature of the cyclical recovery matters but the growth rate of the economy after the recovery (and the unemployment rate) is a more important matter. He questioned the role of the banks in the new financial architecture. After the boom in the 1990s and in the early 2000s, followed by the panic of 2008, we are in an exit (epilogue) stage, although not all policymakers have adopted this stance. The central bank is discussing an exit strategy and, if the fiscal authorities did likewise, confidence will be boosted within the financial markets.

Warsh noted that there is no new beginning and choices are limited because behaviors were formed prior to the epilogue. It is probably impossible for central banks and banks to return to their prior roles, and questions concerning bank size and function need to be discussed by the banks and financial markets. Since fundamental regulatory reform signed by the White House will not clarify the issues, it is important to focus on the financial architecture rather than financial regulation. *Financial architecture* is a set of rules, regulations, and responses by policymakers that impact the financial markets (and participants). This architecture is in a state of flux because Washington and the markets are waiting for each other to anchor. Thus, the Fed's role is to try to gauge what is going on in the real economy, such as the actions of credit markets and businesses during this state of flux.

Will banking be special or organized in financial services or commerce? Or is size and interconnectedness the more relevant question? The answers have real implications for the economy, since they could lead to a quasi–public utility status for financial firms and a bifurcated banking and financial services system. And what is the future role of central banks, asked Warsh? Do they retain their role in the conduct of monetary policy or do they become the ultimate rescuer rather than a first responder in a crisis? Moreover, will central banks retain their independence from the political process?

The role of central banks blurs during crises, as does fiscal and liquidity policy. The central banks tried to be lenders of last resort and focus monetary policy toward the long-term interest of the real economy. Thus, the fiscal authorities and their agents at the Department of the Treasury were the ultimate rescuers. Warsh expressed hope that the reform legislation in the United States would maintain these roles and allow the central bank to return to its narrow but circumscribed role in the next phase.

RICHARD SYLLA wondered if there was a threat to the U.S. central bank and its independence. He noted that the United States has had three central banks in its history, and that financial crises occurred on average once every 20–25 years when there was a central bank but only once every decade when there was not. He also noted the commonality of speeches by then–presidential candidate Andrew Jackson

(1832) and Congressman Ron Paul (R-Tex.) (*End the Fed*, 2009), which accused the central bank of benefiting the privileged class.

The central banks that were created in 1791 and 1816 were abolished on the basis of principles and interests. The principles referred to the belief that the banks were not "necessary and proper," as described in the U.S. Constitution. The state banking interests related to the fact that the central bank was both a regulator as well as a competitor of banks, and that state banks would likely garner the federal government's banking business. The Fed solved the problem by regulating, but not competing with, banks.

The Fed's 1997 balance sheet consisted mainly of Treasury securities on the asset side and high-powered money (e.g., Federal Reserve notes) on the liability side. However, the balance sheet changed dramatically when the banks' reserve deposits increased from $39 billion in December 2007 to $1.25 trillion by January 2010, and the asset side included such items as federal agency debt, mortgage-backed securities, term auction credit and loans, net portfolio holdings, and preferred interest.

According to Walter Bagehot's lender-of-last-resort rules (*Lombard Street*, 1873), a central bank should lend freely to all good banking securities (collateral) in a panic but at a penalty (very high) rate. However, the Fed recently lent "dodgy" collateral at very low rates to particular firms rather than to the market. As the crisis wanes, said Sylla, the Fed's assets will make it vulnerable to charges that it is competing with private financial firms. Should an independent central bank channel capital to particular sectors such as federal agencies, banking, housing, and insurance; and to particular firms such as Bear Stearns/JPMorgan Chase and AIG? Is this playing into the hands of Ron Paul, whose audits in the House bill are a first step toward ending the Fed?

SESSION 6

Internal and External Financial Fragility

Robert J. Barbera; L. Randall Wray, Eric Barthalon, and Frank Veneroso

MODERATOR:
L. RANDALL WRAY
Senior Scholar, Levy Economics Institute

ERIC BARTHALON
Allianz Investment Management, SE

FRANK VENEROSO
Veneroso Associates, LLC

ROBERT J. BARBERA
Investment Technology Group, Inc.

ERIC BARTHALON noted that he and Frank Veneroso shared two fundamental beliefs almost a decade ago: that there would be greater financial instability, and the concept of adaptive expectations (as opposed to the concept of rational man assumed by neoclassical economists). In keeping with Minsky's hypothesis, it is impossible to conceive of financial instability without assuming (explicit) adaptive expectations.

Using an expectations model developed by Nobel Laureate Maurice Allais (1965) and applied to monetary dynamics, Barthalon outlined his insights about financial instability based on applying the model to financial markets. He found that the Allais model both supported and parted ways with Minsky's financial instability hypothesis. It supported Minsky's fundamental insight that stability breeds instability but suggested that financial instability was more endogenous to financial markets than assumed by Minsky.

The Allais model relies on general psychological assumptions such as our collective memory of the past driving today's decisions. Barthalon applied a creative twist to his adaptation of the model by suggesting that our memory can be both long and short at the same time, depending on the observation. The relevance of this insight vis-à-vis Minsky's instability hypothesis is threefold: it explicitly incorporates the feedback loop; it suggests that exuberant expectations are inherently unstable and volatile, while bearish expectations are sticky; and it assumes that responses to the past's present value are both bounded and nonlinear (another creative twist).

Barthalon explained what this framework says about major contemporary bubbles, today's markets, and moral hazard in terms of perceived returns and the perceived risk of loss (i.e., in terms of memory as opposed to rational expectations). These variables were used to describe what Minsky called the *expectational climate*. Based on patterns in Japan and the United States, he found that the recipe for the rise and collapse of an economic bubble is a few years of robust perceived returns close to 10 percent per year (reflecting sound fundamentals), followed by a decline in the perceived risk of loss and a positive and widening spread between the perceived return and the risk-free rate of return.

Following two bear markets since 2000, the perceived equity return is no longer exuberant, but the financial markets seem to be living in an age of undiminished expectations. Barthalon found a nonlinear relationship between the perceived equity return and margin debt at the New York Stock Exchange that perfectly illustrates Ponzi finance. Since 2002, margin debt has been higher than it should be given the level of perceived equity return, and there seems to be a new type of nonadaptive behavior in play. He also found that greater capital appreciation reduces the demand for guarantees. Since today's perceived risk of loss is close to record levels, investors should be demanding higher risk premiums. Either something new is happening, said Barthalon, or there is some potential vulnerability.

Using his model to explain why the market seems to be ahead of itself, Barthalon computed the perceived rate of growth in the fiscal imbalance, the federal debt, and the real monetary base, as well as the perceived rate of change in monetary policy as measured by the interest rate. He determined that we are currently dealing with rather exuberant and therefore very unstable expectations in terms of moral hazard. He also concluded that there is room for both adaptive and rational expectations, since we are confronted with both risk and uncertainty. And since the scope for uncertainty seems to be much larger than that for risk, adaptive expectations dominate, and John Maynard Keynes and Minsky are right. There is evidence in the works of Allais, however, that our behavior under uncertainty (i.e., "animal spirits") may not be as unpredictable as Keynes and Minsky suggest.

FRANK VENEROSO's basic thesis was contained in Barthalon's presentation; that is, the 1990s bubble dynamic was driven by unrealistic expectations of loss that changed market behavior and was supported by policymakers (e.g., the Greenspan put) who focused on higher prices. Rather than bursting the series of bubbles, policy reinflated them and created even greater imbalances in the economy that ultimately led to a final bust. Nevertheless, professional investors continue to exhibit past bubble behavior—moral hazard reduces the perceived risk of loss. Thus, the current situation is very unstable and dangerous.

The real issue is traded assets, not banks and credit, said Veneroso. Bubble price increases lead to excessive debt when an income-based financial system is transformed into a collateral-based financial system. The root cause is the asset bubble, but no one is talking about this. Contrary to Dallas Fed President Richard W. Fisher's observation that bubbles are not unique because they have recurred throughout history, Veneroso pointed out that the serial bubbles that have occurred since the 1990s are unprecedented. The policy regime allowed this to happen, but it has not changed in favor of fundamental valuations and the right allocation of resources. Moreover, no one is considering the behavior of this regime. As a result, prices will be perverse, markets will be profoundly inefficient, and outcomes will be suboptimal.

Contrary to the Fed, Veneroso sees a renewal of bubble behavior despite the fact that most bubble engines are no longer operative. He noted that Barthalon's adaptive expectations model shows sky-high risk and very low perceptions of return, and there is no credit (money) expansion. He also noted that we are experiencing the highest percentage gain in the stock market following a recession since the Great Depression. This gain is attributed to professionals who believe that policymakers will do whatever it takes to prevent another asset break because we have run out of the traditional policy tools. Without any recourse to other bubble engines, the risk is great that equity and commodity prices will fall by perhaps half when they return to traditional valuations.

The monetary policy transmission mechanism is firing on only one cylinder, said Veneroso, and there is an overhang of debt. In the absence of an asset (mainly equities) market and a loss of confidence in the Bernanke put, there is no operative recovery policy. Given the underlying conflict between the casino capitalist regime resuscitated by the Fed and Treasury, and the realistic perceptions of risk (and equilibrium pricing), our seemingly stable market is extremely unstable.

ROBERT J. BARBERA focused on revamping academic economists rather than Wall Street, and on comparing mainstream economic theory (New Classical and New Keynesian) with that of Minsky. He noted that he was on the same side of Post Keynesians when the economy was on its way down but at odds with them when the economy was on its way up. He also noted that Minsky was able to explain both directional dynamics, while mainstream theory could not.

After the demise of Lehman Brothers, for example, University of Chicago economics professor Casey B. Mulligan stated in the *New York Times* that the role of banks was greatly overstated, and that the unemployment rate would not increase much because banks employed only 6 percent of the workforce. Meanwhile, the unemployment rate was soaring. Based on the theories of Minsky and Keynes, one would have recognized that the crisis was extraordinary and that its problems would move from Wall Street to Main Street. The question was how to respond.

The first notion was to bail out the banks. The second was to rely on fiscal stimulus because there was no monetary stimulus (the Fed funds rate was zero). The third was that there would be a weak recovery due to an insufficient fiscal stimulus package. Based on a careful reading of Minsky's works, Barbera argued that all three notions were wrong.

The bank bailout mechanisms such as the Term Asset-backed Securities Loan Facility, TARP, and buying mortgages and Treasuries reversed the bank run (i.e., marking to mayhem), causing risky asset prices to plunge. The fact that the spread between the junk bond and high-grade corporate bond markets was comparable to the peak spread during the Great Depression implied that default rates would exceed those in the 1930s. This did not happen (in contrast to Veneroso's position) because the financial assets were rescued, companies were no longer under pressure, and the economy subsequently recovered.

Barbera stated that the "big ease" is now on in light of the 70 percent rise in the stock market and declining spreads (from 620 to 230 basis points). He contended that the economy is already surprising on the upside and that it will not fade in the second half of this year. The next quarter will likely show another 5 percent real GDP growth rate, since monetary policy has stimulated Main Street.

According to Minsky, there will be a strong recovery when risky asset prices are driven upward and you reflate. Minsky's theories should become part of the mainstream, said Barbera, because current macro theory cannot explain the business cycle and there is fear that Wall Street will return to its old ways rather than adopt meaningful changes.

SESSION 7

International Financial Fragility

James K. Galbraith, Dimitri B. Papadimitriou, Luiz Carlos Bresser-Pereira, and L. Randall Wray

MODERATOR:
DIMITRI B. PAPADIMITRIOU
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JAMES K. GALBRAITH
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Getulia Vargas Foundation

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JAMES K. GALBRAITH noted that the crisis revealed the capacity of central banks and treasuries to protect the large commercial and investment banks from collapse (e.g., the takeovers of Fannie Mae, Freddie Mac, and AIG), that banks such as the Bank of America and Citigroup were not takeover targets, and most significant, that the euro did not collapse when the carry trade unwound and there was extreme demand for the U.S. dollar. Despite the execution of ECB powers, however, the eurozone is far more fragile than the dollar zone.

A simple inference is that the U.S. Constitution is a better economic policy instrument than that in Europe because of its ability to take strong, automatic, and stabilizing fiscal action within a unified federal government. This results in large federal deficits, and is the reason why income and spending have fallen less than jobs and output. Furthermore, there is no mechanism that can force the U.S. government to default on its bonds, and this understanding by the markets has contributed to ongoing lending to Uncle Sam. A fiscal exit, however, is unlikely to happen, said Galbraith.

Although Europe has automatic stabilizers, there is a lack of confidence that countries such as Greece, Portugal, Spain, and Italy will not default because they are comparable to U.S. states. The CDS market provides a means to short their bonds so that yields rise and fiscal-tightening pressures grow as the crisis deepens. Greece is expected to adhere to the SGP and undergo multiple austerity measures in light of its 2009 budget deficit of 12.7 percent of GDP. These measures include cuts in wages and entitlements in the public sector, a hiring freeze, and reductions in government operating expenditures, in combination with an increase in tax revenues. Greece cannot solve its own problems, as the markets have already placed it on an economic death spiral by demanding spending cuts that serve to validate their pessimistic outlook and bets against the Greek government.

Galbraith reviewed responses by eminent eurozone politicians such as former ECB executive Otmar Issing (a founding father of the euro), ECB President Jean-Claude Trichet, German Chancellor Angela Merkel, and Olli Rehn, European Commissioner for Economic and Financial Affairs, who are intent on enforcing the (SGP) rules at the expense of and complete indifference to mortal consequences (but not bankers). An option is that countries could exit the eurozone and reinstate their own currencies or form a separate common currency amongst themselves. This would reduce living standards but recapture competitiveness and the right to decide how to distribute national incomes.

Galbraith praised the Greek government officials who were elected with a broad majority and were fully aware of patronage, tax favoritism, and the poor practices of public administration that have crippled the country. However, they are at the mercy of leaders in Germany, France, and the United States. Even consulting economists and international financial institutions have falsely advised them that sound government policy should eliminate the welfare state and spread the "pain" nationwide so that the markets can improve.

LUIZ CARLOS BRESSER-PEREIRA spoke about capital flows and the changing balance in the world economy. His ideas are fully developed in his book *Globalization and Competition: Why Some Emergent Countries Succeed while Others Fall Behind* (2009). He noted that several middle-income and oil exporting countries are growing much faster than rich countries, achieving high current account surpluses, and making direct investments abroad. A middle-income country is defined as one that has a capable business or capitalist class, a large middle-professional class, and a relatively organized working class that can serve as instruments to achieve its political and economic goals.

The catching-up process has been based on cheap labor, the ability to purchase technology, and abundant natural resources. This process has been partially neutralized by rich-country strategies that include the liberalization of trade combined with growth based on foreign savings, foreign finance, and foreign indebtedness. Moreover, the rich countries pressured other countries to liberalize their financial markets, so exchange rates could appreciate.

Bresser-Pereira observed that the catching-up process was successful when countries resisted market liberalization and growth based on foreign savings, and adopted an industrial strategy based on import substitution and exports (e.g., Brazil in the period from 1930 to 1980). Most countries, particularly those in Latin America, failed to catch up when they based growth on foreign savings (in the 1970s), when they were financially weakened by the great debt crisis and were involved in economic populism (in the 1980s), and when they adopted neoliberal or market-oriented reforms and lost control of their exchange rates (in the 1990s).

Growth accelerated when countries resisted neoliberal reforms and adopted policies based on fiscal and exchange rate responsibilities. China and India, as well as oil and other commodity exporting countries, have experienced high current account surpluses, increases in reserves, and a buildup of sovereign funds. The major financial crisis in 2008 augmented the changing world balance when the crisis hit rich countries more severely than developing countries, and when rich countries adopted the deregulation reforms previously recommended for developing countries.

The catching-up process and changing world balance is the result of middle-income countries recognizing that a "competitive" exchange rate is a crucial demand-side variable in economic growth. These countries learned how to finance growth without resorting to current account deficits and to neutralize the "Dutch disease" (a permanent overvaluation of a currency caused by an increase in natural resource revenues, which reduces the competitiveness of the manufacturing sector). Thus, the Asian countries are keen to manage their own exchange rates because cheap labor risks contracting the Dutch disease.

In order for state-of-the-art industries to be competitive, the exchange rate equilibrium should be based on industrial equilibrium, not in maintaining the current equilibrium. This relationship requires strong administration of the exchange rate, such as an export tax that is equal to the difference between the two equilibrium prices that shift the supply curve of the commodity upward and lead to a (high) current account surplus. If all countries neutralized the Dutch disease, middle-income countries would invest abroad (rather than vice versa) and rich countries would have correspondingly high current account deficits.

Bresser-Pereira noted that Latin American countries such as Brazil still ignore the fact that they are falling behind, while several Eastern European and African countries are facing a major crisis because they still believe that foreign savings lead to growth. The shifting economic balance toward the East is a consequence of deliberate policies that constitute a new type of development based on demand theory that Bresser-Pereira termed "structuralist development macroeconomics."

L. RANDALL WRAY based his review of the crisis on Minsky's money manager capitalism approach and Robert Skidelsky's recent book, *Keynes: The Return of the Master* (2009). Minsky and Keynes's lessons show that the crisis represents an institutional, intellectual, and moral failure. According to Wray, the crisis has just begun and we are in round three of a nine-round bout. The first three rounds included the liquidity crisis of shadow banks, a wave of insolvencies of home mortgage specialists, and bailouts in combination with cooking the books to pay bonuses. The next is a round of defaults that force loss recognition. This round is followed by a knockout punch stemming from a full-scale Minsky-Fisher debt deflation dynamic. We may not have another Great Depression, said Wray, but we have to figure out how to deal with debt deflation.

Rather than a Minsky moment, this crisis represents a Minsky half century that included a number of stages: commercial capitalism, finance capitalism, paternalistic (managerial–welfare state) capitalism, and money manager capitalism (financialization, neoliberalism, shadow banking, and so on). Stability bred instability, as financial assets and liabilities were permitted to build up over time. Furthermore, securitization allowed the globalization of U.S. real estate debt and there was a shift toward self-supervision and deregulation of the banking system.

Recent trends include the rise of managed money (and the decline of banking), the public offering of investment banks, the replacement of regulation and supervision by self-supervision, and the transformation of the business "environment." Two notable aspects of managed money are the volume of assets and liabilities, including the increase of the financial sector's share of the economy and profits; and competition between banks and shadow banks that forced innovations, increased leverage ratios, and led to deregulation. An important part of the story is that the rising but safe government debt during World War II was on the balance sheets of firms and banks, and subsequently leveraged during the postwar growth period when public debt grew to historic highs. Financialization meant layering and leveraging, and the prior commitment of future income flows that had to rely on capital gains and rising prices (i.e., Ponzi finance). In addition, the financial sector's credit market outstanding increased to 140 percent of GDP, and the sector now absorbs 40 percent of corporate profits.

The second trend was 1929 all over again—creating investment trust subsidiaries of Wall Street partnerships and promoting massive leverage and "pump and dump" speculative fever as partnerships went public and the focus shifted to trading rather than placing equities. Top management was rewarded with share options, so there were incentives to manipulate share prices and trade on insider information. Research arms and rating agencies were little more than marketing divisions, and a trade mentality dominated these firms as the average holding period for stocks collapsed.

The third trend included moving assets and liabilities off balance sheet (and increasing leverage); holding riskier assets and mismatched maturities; creating securities and derivatives, and ending Glass-Steagall; using risk-based capital requirements, internal models, and external rating agencies; and handing bank charters to the two remaining investment banks.

The fourth trend included "actionable" and "materially misleading" practices that were approved because there was no other way to win business and no fear of prosecution (e.g., Lehman Brothers). Control fraud was a normal business practice. Fraud, however, was not the cause of the crisis, said Wray. Rather, it was the long-term transformation of the financial system combined with the growth of managed money (in the absence of debt deflation and the promotion of saving) as real wages stagnated. There was also a chronic fiscal drag that was worsened by the trade imbalance.

The policy actions have been directed at saving, not reforming, the system. In Wray's view, this will ultimately lead to an even bigger crash. Too-big-to-fail institutions are larger than they were before the crisis, no one responsible for the crisis has been prosecuted, there is a reliance on Wall Street to reform itself, and there is the misguided belief that government only needs to get the incentives right for market discipline to work. Our most immediate barrier is deficit hysteria, said Wray, and we need to use fiscal policy to try and deal with the problems. Moreover, these deficit fears are not applicable to sovereign national debt.

Minskyan reforms that would promote stability include high consumption and employment; a preference for small- to medium-size banks; definancialization, downsizing, and resolving financial institutions; greater oversight and stronger regulations (no off-balance-sheet entities); and institutions and practices that favor stability. There is no "final" solution to the fundamental flaw of capitalism.

SESSION 8

Policy Responses of Emerging Markets to the Crisis

Jan Kregel, Nelson H. Barbosa Filho, Fernando J. Cardim de Carvalho, and Rainer Kattel

MODERATOR:
JAN KREGEL
Senior Scholar, Levy Economics Institute

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Using Brazil as an example, **NELSON H. BARBOSA** outlined how the ideas presented at the conference could be translated into real action. He organized the Brazilian initiatives into three groups: structural policies before the crisis; temporary policies during the crisis; and new structural policies during the crisis. The first was a great help because Brazil had an investment plan in place when the crisis hit. The second includes policies that may be in effect for many years. The third includes an increase in income transfers related to the country's social safety net in terms of social security, minimum wages, and poverty reduction. It also encompasses a public infrastructure investment plan that provides incentives for private investment. Furthermore, the government adopted industrial policy initiatives and tax cuts for businesses, as well as a restructuring program within the federal government. All of these measures contributed to GDP growth.

When the global crisis hit, 20 percent of domestic credit in Brazil was funded by foreign sources. Access to domestic credit was suddenly cut off, impacting both the Brazilian *real* and foreign currencies. Brazil was able to adopt a countercyclical stance and stabilize exchange rates because it had accumulated a huge amount of foreign reserves. Moreover, there was an easy way to inject liquidity into the system without any legislative approval by using monetary policy and reducing the banks' (very high) reserve requirements. As a result, no Brazilian banks became insolvent during the crisis. Rather, money recycled back to the central bank because Brazil had the highest real interest rate in the world. The central bank subsequently made a special loan to the country's development bank, which then supplied circulating capital for the nonfinancial sector and became, in essence, the penultimate lender of last resort.

The two main public commercial banks also expanded the supply of credit. These banks increased their market share and liquidity (following a flight to safety from the private banks), cut some interest rate spreads, and attenuated the crisis. The federal government cut indirect taxes, provided interest rate subsidies, reduced the huge inventories of durable consumer goods, boosted consumption investment, and extended unemployment insurance. Although these measures did not have a huge impact immediately, they reignited consumer expectations prior to the Christmas (retailing) season. The countercyclical policy stance at the federal level was supplemented by extraordinary budget transfers and a procyclical policy stance at the state and local levels.

In terms of new structural policies, the government introduced two new personal income tax brackets that allowed a tax cut for the middle class and increased disposable income. There was a new housing program (and many subsidies) for poor and lower-middle-class families. The projected (relatively) high growth rate for Brazil is now generating debate about whether the government has done too much to restore the economy, whether these initiatives are inflationary, and if the Brazilian currency and budget deficit will continue to increase.

According to Barbosa, the situation in Brazil is under control. The acceleration of inflation was mainly the result of weather disrupting the supply of basic food items, he said. If inflation, interest rates, and exchange rates stay the same, the central bank's reference scenario shows that monetary policy will bring inflation back to target levels. Current public debt levels are also sustainable, despite exchange rate adjustments and the effects of the crisis. And in terms of the current account deficit, Brazil is in a relatively better position than in the past because of its moderate debt and reserves. Thus, it is able to deal with any volatility caused by foreign events.

In response to the too-big-to-fail concerns expressed at the conference, Barbosa explained that, from a Brazilian perspective, the issue of bank size is not a problem because the banking sector is heavily regulated and the central bank has proactive powers of resolution. In fact, Brazil is now a model for future regulation. Moreover, there are very high capital reserve requirements, no credit default swaps, no shadow banks, and a conservative loan-to-value ratio. The main problems and challenges relate to derivatives and risk exposure in the nonfinancial system.

FERNANDO J. CARDIM DE CARVALHO focused on international reserves and policy space in Latin America. Based on the experience of past crises, he reviewed the self-insurance properties of reserve accumulation by emerging countries as a means of protection against financial crisis. He noted the process of capital account liberalization in the 1990s and the reserve accumulation strategy arising from balance of payment crises (e.g., Argentina), external constraints (e.g., debt servicing), and IMF adjustment programs (and structural conditionalities such as cutting fiscal deficits and raising interest rates). He also noted that reserve accumulations were the byproduct of processes such as the inflow of foreign financial investments and neomercantilist policies (i.e., net exports as the engine of growth). He further noted that the biggest impact of foreign investment relates to local rather than foreign investors, since local investors now have the opportunity to transfer their wealth abroad. This completely changed the impact of capital account activity and related barriers of defense.

Rather than adhering to the self-insurance argument, Latin American governments accumulated reserves reluctantly as a result of ad hoc policies related to high interest rates and a lack of alternative instruments (e.g., net exports became an explicit instrument in Argentina after the 2002 crisis). There was a new and widespread proactive response, whereby Latin American countries could intervene using conventional fiscal and monetary policies (e.g., fiscal spending and lower interest rates), as well as nonconventional policies such as state-controlled banks, and sectoral and social policies. Another important factor supporting the recovery was the export of raw materials to China, which reconstituted a trade pattern reminiscent of the region's predevelopment era. Thus, the impact of the crisis was short and shallow.

Contrary to Barbosa's claims about the efficiency of financial regulation in Brazil, Cardim de Carvalho was more skeptical because capital flight had nowhere to go. There were no liquidity, interest rate, or exchange rate risks—interest rates were high throughout the region and debt was denominated in local currencies. Not only was domestic compensation very attractive, but the accumulation of reserves throughout the crisis also signaled that the situation was under control. This outlook prevented capital flight, and was contrary to responses associated with previous crises in Latin America.

The accumulation of reserves as a defensive device, however, exerts a deflationary impact on the world economy by reducing aggregate demand. This approach will probably continue, said Cardim de Carvalho, because there is no scheme for supplying international liquidity, and capital account liberalization increases the volatility of the balance of payments and exchange rates. And given the cost of IMF support (i.e., policy meddling), it is relatively cheaper. The paradox is that the best policy under globalization is "everyone for oneself."

RAINER KATTEL presented an overview of the policy initiatives in Eastern Europe as a result of the crisis. Although Estonia is considered the ideal example for other European economies to follow (notably Greece) based on measures such as public spending and government debt, its internal devaluation approach has led to very high unemployment levels that have essentially prolonged the crisis and increased the cost.

The Eastern European economies have undergone a process of deindustrialization, replacing its industries with very low value-added jobs. Since most exports are destined for the rest of Europe, it was important that their economies be integrated into the European production networks. In the past two decades, the growth strategy comprised foreign savings combined with significant foreign direct investment in finance and real estate, massive cross-border lending by the foreign-owned financial sector (in foreign currencies) that focused on real estate, and a high dependence on exports. This strategy was supported by neoliberal macroeconomic policies (as in Latin America), a procyclical environment, and currency pegs in the Baltic countries.

The growth strategy transformed domestic banking from specialized to foreign-owned banks that lent mainly to households rather than the production sector. There was lagging productivity as countries specialized in low value-added production and a loss of competitiveness through rapid currency appreciation. Contrary to the notion in 2005 that the Eastern European economies were rising powerhouses, these economies have turned into Ponzi schemes with relatively weak social safety nets due to the 2008–09 slowdown in cross-border flows, foreign direct investment, and exports. On the eve of the crisis, there was a large foreign financing gap of up to 10 percent of GDP, especially in the Baltic countries. Kattel observed that the effect of the foreign banking sector in aiding or abetting the crisis is unresolved.

Kattel concluded that Greece should not follow the example set by Estonia or any of the other Baltic countries. He pointed out that Poland was the only European economy to maintain its exports and grow in 2009. Poland was able to maintain its competitiveness because of its independent (floating) exchange rate policy (its currency was allowed to depreciate more than 20 percent) and its relatively large domestic demand. By contrast, internal devaluation did not work elsewhere in the region. The reason that there are positive current account balances in the Baltic countries is that imports and domestic demand have collapsed, not because of higher exports. Moreover, unemployment has risen to very high levels, so a very deep crisis remains. The increase in government consolidated gross debt reflects the effects of the various stimulus packages, especially in the Central European economies. The higher level of debt-to-income ratios suggests that domestic demand will continue to be anemic (most debt is in euros) and high unemployment levels will remain.

Although public debt as a percentage of GDP is at acceptable levels in Eastern Europe, there have been significant fiscal transfers from the EU. The size of these transfers means that the fiscal deficit for all of the Eastern European economies is comparable to that of Greece (i.e., 10 percent of GDP). Moreover, with the continuation of high unemployment rates and falling labor productivity rates in these economies (relative to Germany's), public debt will soon be comparable to the level in Greece. The Baltic countries are essentially exporting their public deficits and unemployment to the rest of Europe, but their ability to use borrowed money is over.

According to Kattel, the Baltic countries are the mirror image of Portugal, Italy, Ireland, Greece, and Spain (PIIGS). While the private sector bears the cost of the crisis in the Baltic region, the public sector bears the cost in the PIIGS. With the exception of Poland, the Central European economies seem to follow Germany in terms of weak domestic demand and high levels of exports because they have integrated into Germany's production networks. This means that there is danger of a low productivity trap similar to that associated with the PIIGS. The Baltic countries and Central Europe are Greece in disguise, said Kattel.

Participants

 

ROBERT J. BARBERA is managing director and chief economist at Investment Technology Group (ITG), with responsibility for ITG's global economic and financial market forecasts. Barbera has spent the last 28 years as a Wall Street economist, earning a wide institutional following. He is a frequent guest on CNBC and is regularly quoted in the *New York Times* and *Wall Street Journal*. In 2009, he authored *The Cost of Capitalism: Market Mayhem and Stabilizing Our Economic Future*, which the *Times* labeled one of the top six books of 2009 on the issues of finance and crises. The book identifies the root causes of the Great Recession of 2008 as well as key policy prescriptions for economic recovery, and offers commentary about the shape of capitalism in the decades to come.

Barbera is a fellow in the economics department at Johns Hopkins University, where he has been teaching applied macroeconomics for the last six years. Early in his career, he served as a staff economist for Senator Paul Tsongas and as an economist for the Congressional Budget Office. He also lectured at MIT. From 1982 through 1987, Barbera was the chief economist at E. F. Hutton. In 1988, he became chief economist and director of economic research at Lehman Brothers. He left that post in mid-1994, and through mid-1996 served as co-chairman of Capital Investment International, a New York–based research boutique. Barbera earned both his B.A. and his Ph.D. from Johns Hopkins.

NELSON H. BARBOSA FILHO is professor of macroeconomics and public finance at the Institute of Economics, Federal University of Rio de Janeiro, Brazil. He has been a member of President Luiz Lula da Silva's administration since 2003, and in August 2008 was appointed secretary of economic policy at the Brazilian Ministry of Finance. Barbosa holds a Ph.D. in economics from The New School (2001)

ERIC BARTHALON is executive director and global head of capital markets and TAA at Allianz Investment Management, SE, Munich (AIM). He graduated from the Ecole Supérieure de Commerce de Paris (now ESCP-Europe) with a major in finance in 1979 and holds a law degree from Paris University (1979). He joined Paribas's private banking department as a bond portfolio manager in 1980. In 1992, he became head of asset allocation research at Paribas Asset Management in London. In 1996, he was appointed Paribas's chief economist. Barthalon joined Allianz Global Investors in 2000. As chief economist and co-head of European multi assets for RCM, an Allianz company, he was responsible for the team in charge of producing asset allocation recommendations and managing balanced portfolios, including alpha-porting funds (Allianz Investors Vision). He joined AIM in 2008 as head of the capital markets and TAA team. From ALM to asset manager selection and monitoring, AIM owns the investment process followed by the insurance companies of the Allianz Group for the management of their reserves. He has remained a member of the RCM Global Policy Committee and is a regular contributor to RCM's quarterly Global Strategic Outlook.

Since 1996, Barthalon has authored a number of essays for *Conjoncture*, Paribas's monthly economic bulletin. With Jacques de Larosière, he presented a paper on the restructuring of the European banking industry to the 2000 SUERF colloqium in Vienna (published by Routledge as part of *Adapting to Financial Globalisation*, 2001). He also contributed a chapter, *Nouvelle économie et capacité d'oubli* (The New Economy and Memory Decay), to the 2001 anthology *Crises financières* (Economica).

LUIZ CARLOS BRESSER-PEREIRA was born in São Paulo in 1934. He holds a bachelor's degree in law from the University of São Paulo, an M.B.A. from Michigan State University, and a Ph.D. and Livre Docência in economics from the University of São Paulo. He is emeritus professor at the Getulio Vargas Foundation, where he has taught economics and political and social theory since 1959. He is a former visiting professor of economic development and political theory at the University of Paris I and a former visiting fellow at Oxford University. Since 2003, he has taught a monthlong seminar at the École d'Hautes Études en Sciences Sociales, Paris.

From 1963 to 1982, while continuing to teach, Bresser-Pereira served as vice president of the Pão de Açúcar Group. In 1983, with the election of Franco Montoro, the first democratic governor of São Paulo, he was appointed president of the state bank of São Paulo, and in 1985, chief of staff to the governor. In April 1987, in the aftermath of the Cruzado Plan crisis, he became the finance minister of Brazil, and proposed a solution to the 1980s debt crisis that later evolved into the Brady Plan. In the Fernando Henrique Cardoso administration he was minister of federal administration and reform of the state (1995–98), in which office he initiated the 1995 Public Management Reform, and in 1999, minister of science and technology. Since July 1999, he has been fully dedicated to academic life. He is the editor of the *Brazilian Journal of Political Economy*, writes a weekly column in *Folha de S. Paulo*, and is a member of the administrative boards of one for-profit and several nonprofit organizations. His major books include *Development and Crisis in Brazil* (1968/2003), *A sociedade estatal e a tecnoburocracia* (1980); *The Theory of Inertial Inflation*, with Yoshiaki Nakano (1984); *Lucro, acumulação e crise* (1986); *Economic Reforms in New Democracies*, with Adam Przeworski and José María Maravall (1993); *Reforma do estado para a cidadania* (1998); *Democracy and Public Management Reform* (2004); and *Globalization and Competition* (2010).

JAMES BULLARD took office as president and chief executive officer of the Federal Reserve Bank of St. Louis in April 2008. He directs the activities of the Bank's head office in St. Louis as well as its three branches in Little Rock, Louisville, and Memphis. In addition, he participates in the Federal Open Market Committee, the Federal Reserve's principal monetary policymaking body. Bullard is an accomplished economic theorist whose fundamental contributions to monetary economics and policy analysis are highly regarded in the profession. He joined the Research Division of the Federal Reserve Bank of St.

Louis in 1990 and attained positions of increasing responsibility. Prior to being appointed president, he was deputy director of research for monetary analysis.

LEONARDO BURLAMAQUI is a program officer with the Ford Foundation working on global economic governance issues. His grant making focuses on helping to redesign and democratize global financial governance systems, and the development of regional financial cooperation. The main goal is to make global financial institutions more transparent, accountable, and effective in delivering financial stability and finance for development. His work supports new thinking, policy alternatives, capacity building, and advocacy in these areas.

Before joining the Ford Foundation in 2006, Burlamaqui was professor and research director of the law and economics program at Candido Mendes University and associate professor of economics at the State University of Rio de Janeiro. He also served as one of two coordinators of the Ford Foundation–funded Research and Learning Network on Globalization and Development. His career as a development economist and policy researcher includes posts at the World Intellectual Property Organization, the World Institute for Development Economics Research in Helsinki, the Institute of Developing Economies in Tokyo, and the Centre for Development and the Environment at the University of Oslo. He has published widely on innovation and competition, development economics, intellectual property rights, globalization and institutional change, and the political economy of global trade and finance. Burlamaqui holds a Ph.D. in economics from the Federal University of Rio de Janeiro.

FERNANDO J. CARDIM DE CARVALHO is professor of economics at the Federal University of Rio de Janeiro. Formerly an economist with the Brazilian Central Statistical Office (IBGE), he is also a past chair of the National Association of Graduate Schools of Economics in Brazil (ANPEC) and former member of the Advisory Committee on Economics for the National Research Council. He has served as a consultant to public institutions such as the National Development Bank of Brazil (BNDES); private institutions, including the National Association of Financial Institutions of Brazil (formerly ANDIMA); nongovernmental institutions such as IBASE, Action Aid USA, and WEED–Germany; and the United Nations. He currently co-directs, with Jan Kregel, a project on the democratization of international financial institutions for IBASE, sponsored by the Ford Foundation, and is a member of the Economic and Social Development Council of the Presidency of Brazil. Cardim de Carvalho's publications include papers in the *Journal of Post Keynesian Economics*, *Cambridge Journal of Economics*, *Banca Nazionale del Lavoro Quarterly Review*, *International Journal of Political Economy*, and *Brazilian Journal of Political Economy*, among other academic journals, as well as over 50 chapters in books published in Brazil, the United States, the United Kingdom, and Germany. He holds a Ph.D. in economics from Rutgers University (1986).

RICHARD S. CARNELL is associate professor of law at Fordham University, with expertise in banking regulation, government-sponsored enterprises, and the regulation of financial institutions. He is a former Assistant Secretary of the Treasury for Financial Institutions (1993–99); senior counsel (1989–93) and counsel (1987–88) to the U.S. Senate Committee on Banking, Housing, and Urban Affairs; and attorney to the Board of Governors of the Federal Reserve System (1984–87). From 1982 to 1984, he was a member of the San Francisco–based law firm Broad, Schulz, Larson & Wineberg. Carnell's most recent book is *Banking Law and Regulation* (4th ed., 2008; with Jonathan R. Macey and Geoffrey P. Miller). He holds a B.A. from Yale University (1975) and a J.D. from Harvard University (1982).

JOHN CASSIDY is a journalist and an author. He is a staff writer at the *New Yorker*, a contributor to the *New York Review of Books,* and a regular guest on television and radio programs, including the *PBS NewsHour* with Jim Lehrer. His latest book, *How Markets Fail: The Logic of Economic Calamities,* was published in November 2009. The *New York Times* said it provided a "brilliant intellectual framework" for understanding the financial crisis, and the *Economist* and *BusinessWeek* selected it as one of the best books of the year.

Cassidy was born in Leeds, West Yorkshire, in 1963, and graduated from University College, Oxford, with a First Class degree in modern history and economics. Before joining the *New Yorker*, in 1995, he worked for seven years on the London *Sunday Times*, where he was the Washington correspondent and business editor, and for two years on the *New York Post*, where he was deputy editor. Cassidy's first book, *Dot.Con: The Greatest Story Ever Sold*, came out in 2002, and his work has been translated into more than a dozen languages.

JANE D'ARISTA is a research associate with the Political Economy Research Institute at the University of Massachusetts Amherst (UMA) and co-coordinator of its Committee of Economists and Analysts for Financial Reform. Since 1999, she has written and directed programs for the Financial Markets Center, conducted a graduate seminar on domestic and international finance at UMA, and taught in the graduate programs in economics at The New School and the University of Utah. Before that, she lectured on law and economics for the graduate program in international banking and financial law studies at Boston University School of Law, where she also served as academic adviser and associate director of the Morin Center from 1986 to 1992. During a 20-year period ending in 1986, D'Arista worked for the U.S. Congress, serving as chief finance economist for the Subcommittee on Telecommunications and Finance, House Energy and Commerce Committee; as a principal analyst in the international division of the Congressional Budget Office; and as a member of the staff of the House Banking Committee. Her publications include studies of the Reconstruction Finance Corporation, the development of U.S. monetary policy, the operations of U.S. banks abroad and foreign banks in the United States, debt problems of developing countries, financial restructuring in the United States, the impact of pension funds on financial markets, international capital flows and national macroeconomic policies, and proposals to reform deposit insurance, the international financial and monetary systems, and the implementation of domestic monetary policy. Many of her earlier studies of U.S. monetary policy and financial markets were revised and included in *The Evolution of U.S. Finance* (1994), a two-volume work published by M. E. Sharpe, in the Columbia University Seminars series.

BERT ELY has consulted on deposit insurance and banking structure issues since 1981. In 1986, he became an early predictor of the savings-and-loan crisis and a taxpayer bailout of the FSLIC. In 1991, he was the first person to correctly predict the noncrisis in commercial banking. Ely continuously monitors conditions in the banking industry as well as monetary policy. In recent years, he has focused increased attention on banking problems, the crisis in housing and housing finance and the entire U.S. financial system, and the resolution of the Fannie Mae and Freddie Mac conservatorships. He has testified on numerous occasions before congressional committees on banking issues, and he often speaks on these matters to bankers and others. He is interviewed by the media about banking and other financial issues on a regular basis. Ely first established his consulting practice in 1972. Before that, he was the chief financial officer of a public company, a consultant with Touche, Ross & Company, and an auditor with Ernst & Ernst. He received his M.B.A. from Harvard Business School in 1968 and his bachelor's degree in economics from Case Western Reserve University in 1964.

KEITH S. ERNST serves as director of research for the Center for Responsible Lending (CRL), a nonprofit, nonpartisan research and policy organization dedicated to protecting homeownership and family wealth by working to eliminate abusive financial practices. CRL is an affiliate of Self-Help, a nonprofit community development financial institution that has provided over $5.7 billion of financing to 64,000 low-wealth families, small businesses, and nonprofit organizations. Ernst's responsibilities with the Center include management of research projects, original research and policy analysis, and direct technical assistance to policymakers. On topics relevant to this exchange, he has published research predicting the subprime foreclosure crisis as early as 2006 and on evaluating the effectiveness of state regulations in the subprime mortgage market. He has testified before policymakers on developments in the mortgage market, including the U.S. Congress, the Federal Reserve Board, and state legislatures. Ernst holds both a law degree and a graduate degree in public policy studies from Duke University

PETER R. FISHER is vice chairman and head of BlackRock's Fixed Income Portfolio Management globally. He was co-head of the firm's fixed income from 2007 through 2009. Fisher is a member of BlackRock's Operating and Leadership Committees and its Government Relations Steering Committee. From 2005 to 2007, he was chairman of BlackRock Asia, with responsibility for the firm's businesses in Japan, Korea, China, Hong Kong, Taiwan, Singapore, and Southeast Asia. Prior to joining BlackRock in 2004, he served from 2001 to 2003 as Under Secretary of the Treasury for Domestic Finance, and in that capacity served as the Treasury's representative to the Pension Benefit Guaranty Corporation and on the board of the Securities Investor Protection Corporation. Before joining the Treasury, Fisher spent 15 years at the Federal Reserve Bank of New York, concluding his service there as executive vice president and manager of the System Open Market Account for the Federal Open Market Committee. In that capacity, he was responsible for the conduct of domestic bond market operations, foreign currency operations, and the management of the foreign currency reserves of both the Federal Reserve and the Treasury. Fisher currently also serves as a nonexecutive director of the Financial Services Authority of the United Kingdom. He holds a B.A. in history from Harvard College (1980) and a J.D. from Harvard Law School (1985).

RICHARD W. FISHER assumed the office of president and CEO of the Federal Reserve Bank of Dallas in April 2005. In this role, he serves as a member of the Federal Open Market Committee, the Federal Reserve's principal monetary policymaking group. He is a former vice chairman of Kissinger McLarty Associates, a strategic advisory firm chaired by former Secretary of State Henry Kissinger. Fisher began his career in 1975 at the private bank of Brown Brothers Harriman & Co., where he specialized in fixed income and foreign exchange markets. He became Assistant to the Secretary of the Treasury during the Carter administration, working on issues related to the dollar crisis of 1978–79. He then returned to Brown Brothers to found their Texas operations in Dallas. In 1987, Fisher created Fisher Capital Management and a separate funds-management firm, Fisher Ewing Partners. Fisher Ewing's sole fund, Value Partners, earned a compound rate of return of 24 percent per annum during his period as managing partner. He sold his controlling interests in both firms when he rejoined the government in 1997. From 1997 to 2001, Fisher was deputy U.S. trade representative with the rank of ambassador. He oversaw the implementation of NAFTA and various agreements with Vietnam, Korea, Japan, Chile, and Singapore. He was a senior member of the team that negotiated the bilateral accords for China's and Taiwan's accession to the World Trade Organization.

Throughout his career, Fisher has served on numerous for-profit and not-for-profit boards. He has also maintained his academic interests, teaching graduate courses and serving on several university boards. He was a Weatherhead Fellow at Harvard University in 2001, is an honorary fellow of Hertford College at Oxford University, and is a fellow of the American Academy of Arts and Sciences. A first-generation American, he is equally fluent in Spanish and English, having spent his formative years in Mexico. He attended the U.S. Naval Academy (1967–69), graduated with honors in economics from Harvard (1971), read Latin American politics at Oxford (1972–73), and received an M.B.A. from Stanford University (1975). In October 2006, Fisher received the Service to Democracy Award and Dwight D. Eisenhower Medal for Public Service from the American Assembly. In April 2009, he was inducted into the Dallas Business Hall of Fame.

Senior Scholar **JAMES K. GALBRAITH** is currently Lloyd M. Bentsen Chair in Government and Business Relations and professor of economics at the LBJ School of Public Affairs, University of Texas at Austin. He holds degrees from Harvard University (B.A., magna cum laude, 1974) and Yale (Ph.D. in economics, 1981). He studied economics as a Marshall Scholar at King's College, Cambridge in 1974–75, and then served in several positions on the staff of the U.S. Congress, including as the executive director of the Joint Economic Committee. He was a guest scholar at The Brookings Institution in 1985 before joining the faculty at the University of Texas. From 1995 to 1997, he directed the LBJ School's Ph.D. program in public policy. He held a Fulbright Distinguished Visiting Lectureship in China in the summer of 2001 and was named a Carnegie Scholar in 2003. His recent research has focused on the measurement and understanding of inequality in the world economy, and he leads an informal research group called the University of Texas Inequality Project with several of the school's distinguished graduate students. Galbraith is also chair of the board of Economists for Peace and Security. He writes a column for *Mother Jones* and commentary for many other publications, including the *Texas Observer*, the *American Prospect*, and the *Nation*. He is an occasional commentator for Public Radio International's *Marketplace*. Galbraith's new book is *The Predator State: How Conservatives Abandoned the Free Market and Why Liberals Should Too* (2008). He is also the author of *Balancing Acts: Technology, Finance and the American Future* (1989) and *Created Unequal: The Crisis in American Pay* (1998). *Inequality and Industrial Change: A Global View* (Cambridge University Press, 2001), is co-edited with Maureen Berner and features contributions from six LBJ School Ph.D. students. He has co-authored two textbooks, *The Economic Problem*, with the late Robert L. Heilbroner, and *Macroeconomics*, with William Darity Jr.

Since July 2001, **MICHAEL GREENBERGER** has been a professor at the University of Maryland School of Law, where he teaches a course titled "Futures, Options and Derivatives." He serves as technical adviser to the United Nations Commission of Experts of the President of the U.N. General Assembly on Reforms of the International Monetary and Financial System. He is a recent member of the International Energy

Forum's (IEF) Independent Expert Group, which provided recommendations for reducing energy price volatility to the IEF's 12th Ministerial Meeting in March 2010.

Greenberger was a partner for more than 20 years in the Washington, D.C., law firm of Shea & Gardner, where he served as lead litigation counsel before courts of law nationwide, including the U.S. Supreme Court. In 1997, he left private practice to become director of the Division of Trading and Markets at the Commodity Futures Trading Commission (CFTC), where he served under CFTC Chairperson Brooksley Born. He also served on the Steering Committee of the President's Working Group on Financial Markets, and as a member of the International Organization of Securities Commissions' Hedge Fund Task Force. Greenberger has frequently been asked to testify before Congressional committees on issues pertaining to dysfunctions within U.S. financial markets caused by complex and unregulated financial derivatives. He has also appeared both in the media and at academic gatherings to discuss this subject. Greenberger is a Phi Beta Kappa graduate of Lafayette College and the University of Pennsylvania Law School.

PHILIPP HARTMANN is head of the Financial Research Division of the European Central Bank (ECB). He is also the vice president of SUERF (The European Money and Finance Forum), a fellow of the Centre for Economic Policy Research, and a member of the Basel Committee on Banking Supervision Research Task Force. His previous positions include that of research fellow for financial regulation at the London School of Economics. Hartmann's work is on a wide range of issues in financial and international monetary economics. He has authored or co-edited several books in these fields, published numerous articles in academic journals, and serves as an associate editor of the *Journal of Financial Stability*. His policy work has been published in many official reports and discussed in fora that include the ECOFIN Council, the ECB Governing and General Councils, the Basel Committee on Banking Supervision, and the U.N. Economic Commission for Europe. In 2002, Hartmann was awarded the first CEPR/European Summer Institute Prize for the best central bank research paper. He holds a Doctorat en Sciences Economiques from the Ecole des Hautes Etudes en Sciences Sociales in Paris.

JAN HATZIUS is managing director and chief U.S. economist at Goldman Sachs, and is responsible for setting the firm's U.S. economic and interest rate outlook. He joined the firm's Frankfurt office in 1997, and transferred to New York in 1999. He was named managing director in 2004 and partner in 2008. Hatzius's most influential past research has examined the link between mortgage equity withdrawal and consumption, as well as the impact of credit losses on bank lending. He is a co-author of the study "Leveraged Losses: Lessons from the Mortgage Market Meltdown," presented at the 2008 U.S. Monetary Policy Forum. He received the 2009 Lawrence R. Klein Award for Blue Chip Forecast Accuracy for the most accurate U.S. economic forecast over the prior four years. He was also ranked first in the *Wall Street Journal* and Bloomberg 2009 forecasting contests, as well as in the *Institutional Investor* 2009 ranking of economists by fixed-income investors. Hatzius is a member of the Congressional Budget Office's Panel of Economic Advisers, as well as the Federal Reserve Bank of New York's Economic Advisory Panel. Prior to joining Goldman Sachs, he was a research officer at the London School of Economics. Hatzius earned a Ph.D. in economics from Oxford University in 1995. He also holds degrees from the University of Wisconsin–Madison and the Kiel Institute for the World Economy.

THOMAS M. HOENIG is president and chief executive officer of the Federal Reserve Bank of Kansas City and a member of the System's Federal Open Market Committee. He directs Federal Reserve activities in the Tenth Federal Reserve District, an area that includes Colorado, Kansas, Nebraska, Oklahoma, Wyoming, the northern half of New Mexico, and the western third of Missouri. Hoenig assumed the role of president in October 1991. He joined the Bank in 1973 and was its senior officer in banking supervision during one of the most tumultuous periods in the history of the region's financial institutions, the banking crisis of the 1980s. During that crisis, he was involved with nearly 350 banks that either failed or received assistance. In the recent financial crisis, he has been especially vocal about the regulation of the financial industry and the role of monetary policy. As Bank president, he is host to the Federal Reserve Bank of Kansas City's annual Jackson Hole economic policy symposium. This event, first held in 1978, is attended by central bankers, policymakers, and economists from around the globe. The Federal Reserve Bank of Kansas City is one of 12 regional banks in the Federal Reserve System. In addition to its participation in setting national monetary policy, the Bank and its branches in Denver, Oklahoma City, and Omaha are also responsible for supervising and regulating numerous commercial banks and bank holding companies, serving as the bank for the U.S. Government and for commercial banks, and providing other payment services to depository institutions.

RAINER KATTEL is professor of technology governance and innovation policy at the Tallinn University of Technology. His main research area is innovation and industrial policies, with a particular emphasis on Eastern Europe and catching-up economies. Since the early 2000s, he has also focused on financial fragility in these countries. His recent publications include *Ragnar Nurkse (1907–2007): Classical Development Economics and Its Relevance for Today*, (2009; co-edited with Jan Kregel and Erik Reinert); and *Techno-Economic Paradigms: Essays in Honour of Carlota Perez* (2009; co-edited with Wolfgang Drechsler and Erik Reinert).

JAN KREGEL is a senior scholar at the Levy Institute and director of its Monetary Policy and Financial Structure program. He currently holds the positions of distinguished research professor at the Center for Full Employment and Price Stability of the University of Missouri–Kansas City and professor of development finance at the Tallinn University of Technology. During 2009 he served as Rapporteur of the Commission of Experts of the President of the U.N. General Assembly on Reforms of the International Financial System. He was formerly chief of the Policy Analysis and Development Branch of the U.N. Financing for Development Office and deputy secretary of the U.N. Committee of Experts on International Cooperation in Tax Matters. Before joining the United Nations, Kregel was professor of economics at the Università degli Studi di Bologna, as well as professor of international economics at Johns Hopkins University's Paul Nitze School of Advanced International Studies, where he also served as associate director of its Bologna Center from 1987 to 1990. He has published extensively, contributing over 200 articles to edited volumes and scholarly journals, including the *Economic Journal*, *American Economic Review*, *Journal of Economic Literature*, *Journal of Post Keynesian Economics*, *Economie Appliquée*, and *Giornale degli Economisti*. His major works include a series of books on economic theory, among them, *Rate of Profit, Distribution, and Growth: Two Views* (1971); *The Theory of Economic Growth* (1972); *Theory of Capital* (1976); and *Origini e sviluppo dei mercati finanziari* (1996). His most recent book is *International Finance and Development* (2006; with José Antonio Ocampo and Stephany Griffith-Jones). Kregel studied at the

University of Cambridge, and received his Ph.D. from Rutgers University. He is a life fellow of the Royal Economic Society (U.K.) and an elected member of the Società Italiana degli Economisti.

PAUL KRUGMAN is professor of economics at Princeton University. He received his B.A. from Yale University and his Ph.D. from MIT; prior to taking his current position, he taught at Yale and Stanford University, and at MIT. He also spent a year on the staff of the Council of Economic Advisers (1982–83). Krugman's research is mainly in the areas of international trade, where he is one of the founders of the "new trade theory," with its focus on increasing returns and imperfect competition, and international finance, where he has worked on such issues as currency crises. In 1991, Krugman received the American Economic Association's John Bates Clark Medal, a prize given every two years to an economist under the age of 40. In addition to teaching and academic research, Krugman writes extensively for nontechnical audiences, and is a regular op-ed columnist for the *New York Times*.

EUGENE A. LUDWIG is founder, chairman, and CEO of the global financial consulting firm Promontory Financial Group. He established the firm in 2000, and has guided its growth into a worldwide company with 11 offices on four continents and clients in more than 50 countries. As a former U.S. Comptroller of the Currency (1993–98), Ludwig is attuned to the issues facing government officials as they reckon with revamping the financial regulatory system to withstand future shocks. As Comptroller, he served as the Clinton administration's point person on the policy response to the credit crunch of the early 1990s, fashioning an 11-point plan that was instrumental in ending the credit crunch and helping banks begin to lend again. Concurrently, he served as chairman of the Federal Financial Institutions Examination Council, a member of the Basel Committee on Banking Supervision, and a director of the Federal Deposit Insurance Corporation. Following his government service, Ludwig was named vice chairman and senior control officer of Bankers Trust New York Corporation in 1998, and was instrumental in steering the firm through its landmark 1999 merger with Deutsche Bank.

As CEO of Promontory, Ludwig had been writing and speaking regularly about the breakdown of credit discipline and emerging problems with subprime mortgages for more than two years before the extent of the troubles became widely acknowledged in 2008. Notably, he co-authored (with Paul Volcker and Nicholas Brady) a watershed *Wall Street Journal* op-ed in September 2008 that fundamentally altered the tone of the debate over what was then called "the subprime crisis." He currently writes a highly regarded monthly column for *American Banker*, the financial services daily, and is frequently sought after by the media as an interpreter of news events. Before becoming Comptroller in 1993, Ludwig was a partner in the law firm of Covington & Burling, specializing in banking law. He has written numerous articles on banking and finance for scholarly journals and publications, and has been a guest lecturer at Yale and Harvard University Law Schools and Georgetown University's International Law Institute. He has also lectured at the Yale Business School and Harvard's Kennedy School of Government. Ludwig graduated magna cum laude from Haverford College and received a scholarship to Oxford University, where he earned a B.A. degree and an M.A. degree as a Keasbey Fellow. He holds an LL.B. from Yale.

JEFF MADRICK is a senior fellow of the Roosevelt Institute and the Schwartz Center for Economic Policy Analysis, The New School, as well as editor of the 40-year-old economics magazine *Challenge*. A former economics columnist for the *New York Times*, he is a regular contributor to the *New York Review of Books*.

He also teaches at The Cooper Union. Madrick is the author of a half-dozen books, including *Taking America* (1987) and *The End of Affluence* (1995), both of which were *New York Times* Notable Books of the Year. *Taking America* was also chosen by *BusinessWeek* as one of the 10 best books of the year. His latest book is *The Case for Big Government* (2009), which won a PEN America award for general nonfiction. He is currently working on a history of the U.S. economy since 1970, to be called *The Age of Greed and Those Who Made It* (Alfred A. Knopf). Madrick has written for the *Washington Post*, the *Los Angeles Times*, *Institutional Investor*, the *Nation*, *American Prospect*, the *Boston Globe*, *Newsday*, the *Columbia Journalism Review*, and the business, op-ed, and Sunday magazine sections of the *New York Times*, among other publications. A former NBC News commentator, he has appeared on *Charlie Rose*, *PBS NewsHour*, *Now with Bill Moyers*, *Frontline*, CNN, CNBC, ABC, CBS, BBC, Bloomberg, and NPR.

MARTIN MAYER is the author of 34 books, of which four—*Madison Avenue, USA* (1958); *The Schools* (1961); *The Lawyers* (1967); and *The Bankers* (1975)—were major best sellers. He is a former columnist for *Esquire* (on music), *American Banker* (banking), and *American Film* (television). In the 1960s, he served on the President's Panel on Educational Research and Development for Presidents Kennedy and Johnson. In the early 1980s, he served on President Reagan's National Commission on Housing. Mayer has been a consultant to the American Council of Learned Societies, the Carnegie Corporation, the Ford Foundation, the Alfred P. Sloan Foundation, the Kettering Foundation, and the Twentieth Century Fund. He wrote the 1983 centennial history of the Metropolitan Opera, and from the mid-1980s to the mid-1990s was the New York and Washington critic for the London-based *Opera Magazine*. Since 1993, he has been a guest scholar at The Brookings Institution. In the last five years, 12 of Mayer's books have been translated into Chinese and published in China. A Korean-language edition of his 2001 book *The Fed* was published last year.

PAUL McCULLEY is a managing director, generalist portfolio manager, and member of the investment committee in the Newport Beach office of PIMCO, the global investment management firm. In addition, he heads PIMCO's short-term bond desk, leads the firm's cyclical economic forums, and is author of its monthly research publication, *Global Central Bank Focus*. Prior to joining PIMCO in 1999, McCully was chief economist for the Americas at UBS Warburg. During 1996–98, he was named to six seats on the Institutional Investor All-America fixed-income research team. He has 26 years of investment experience and holds an M.B.A. from Columbia Business School. He received his undergraduate degree from Grinnell College.

GRETCHEN MORGENSON is assistant business and financial editor and a columnist at the *New York Times*. She has covered the world financial markets for the *Times* since May 1998 and won the Pulitzer Prize in 2002 for her "trenchant and incisive" coverage of Wall Street. Morgenson is a financial journalist with Wall Street experience. Her stint as a stockbroker at Dean Witter Reynolds in New York in the early 1980s gives her stories a depth of knowledge and skepticism uncommon to financial reporting. In addition to her years on Wall Street, she spent a decade as a writer and editor at *Forbes* magazine. In 2009, Morgenson won a Gerald Loeb Award in the "Beat Writing" category for her coverage of Wall Street. This followed her Gerald Loeb Award for excellence in financial commentary in 2002 and the American University School of Communication's Annual Journalism Award for excellence in personal finance reporting in 2000. Morgenson graduated from Saint Olaf College in 1976.

RICHARD H. NEIMAN was appointed by the governor in March 2007 to serve as New York State's 43rd Superintendent of Banks. Neiman has extensive experience in the financial industry, with a range of perspectives gained in executive, regulatory, and legal roles. In November 2008, he was appointed by House Speaker Nancy Pelosi to serve on the five-member Congressional Oversight Panel, created to oversee the implementation of the Emergency Economic Stabilization Act. Neiman also serves on the board of the Conference of State Bank Supervisors and chairs Governor Paterson's HALT (Halt Abusive Lending Transactions) Task Force to address the housing and foreclosure crisis. In this capacity, he has taken an expanded leadership role and is responsible for a wide range of initiatives, including enforcement, legislative, consumer outreach, and encouraging loss mitigation efforts. Neiman began his career with the Office of the Comptroller of the Currency in Washington, D.C., where he served as special assistant to the chief counsel. He subsequently spent 10 years at Citicorp, where he held a variety of legal and regulatory positions, including general counsel of its Global Equities Group. Neiman then returned to Washington to serve as director of regulatory advisory services for Price Waterhouse. In 1994, he joined TD Waterhouse Group, Inc., a bank holding company and global online financial services firm, as executive vice president and general counsel. He remained with TD Waterhouse until its acquisition by Ameritrade in 2006. Immediately prior to joining the Banking Department, Neiman served as president and CEO of TD Bank USA, N.A., a subsidiary of the Toronto-Dominion Bank that provides banking services to the customers of TD Ameritrade. Neiman holds a B.A. degree in political science from the American University School of Government and a J.D. degree from Emory University School of Law. He serves on the board of directors and is a vice president of the Henry Street Settlement, one of New York's oldest social services organizations and providers of shelters for the homeless. He also serves on the board of the Harlem Educational Activities Fund, a mentoring and college preparatory organization serving students in Harlem and Washington Heights.

DIMITRI B. PAPADIMITRIOU is president of the Levy Institute and executive vice president and Jerome Levy Professor of Economics at Bard College. He has testified on a number of occasions in committee hearings of the U.S. Senate and House of Representatives, was vice chairman of the Trade Deficit Review Commission of the U.S. Congress (1999–2001), and is a former member of the Competitiveness Policy Council's Subcouncil on Capital Allocation (1993–98). He was a distinguished scholar at the Shanghai Academy of Social Sciences in fall 2002. His research includes financial structure reform, fiscal and monetary policy, community development banking, employment policy, and the distribution of income, wealth, and well-being. He heads the Levy Institute's Macro-Modeling Team studying and simulating the U.S. and world economies. In addition, he has authored and co-authored many articles in academic journals and Levy Institute publications relating to Federal Reserve policy, fiscal policy, financial structure and stability, employment growth, and Social Security reform. Papadimitriou has edited and contributed to 10 books published by Palgrave Macmillan, Edward Elgar, and McGraw-Hill, and is a member of the editorial boards of *Challenge*, the *Bulletin of Political Economy*, and the *Journal of Economic Analysis*. He is a graduate of Columbia University and received a Ph.D. in economics from The New School.

Research Associate **ROBERT W. PARENTEAU** is currently sole proprietor of MacroStrategy Edge, where he uses macroeconomic insights to inform U.S. equity and global balanced-portfolio strategy. He is also editor of the monthly *Richebacher Letter*. For more than two decades, Parenteau served as chief U.S.

economist and investment strategist at RCM, an investment management company that is part of Allianz Global Investors. In this effort, he guided the global and domestic asset allocation, sector, factor, and industry selection decision making of RCM portfolio managers and equity analysts. In 1999 and 2000, he presented several papers at the Levy Institute's annual conference on financial structure that applied Hyman P. Minsky's financial instability hypothesis to the late-1990s technology bubble. He further explored the macrodynamics of financial imbalances in papers presented at the Political Economy Research Institute (2001), the annual International Post Keynesian Workshops in 2002 and 2004, and the Eastern Economic Association proceedings in 2005. Versions of his papers were published as chapters in *Contemporary Post Keynesian Analysis* (2004; L. Randall Wray and Mathew Forstater, eds.) and *Financialization and the World Economy* (2005; Gerald A. Epstein, ed.). Parenteau earned a B.A. in political economy at Williams College in 1983. He completed a chartered financial analyst degree in 1989 and then served as a regular lecturer for all three levels of the Security Analysts of San Francisco CFA preparation course until 1999.

ERNEST T. PATRIKIS is a partner in the New York office of White & Case, LLP, in the firmwide bank and insurance regulatory practice. Patrikis is one of the few lawyers in private practice who has extensive experience in both the banking and insurance industries, having served in senior positions for 30 years at the Federal Reserve Bank of New York and for eight years at AIG. Before joining White & Case, he led the regulatory practice at Pillsbury Winthrop Shaw Pittman, LLP. During his career at the Federal Reserve Bank of New York, Patrikis served as general counsel for many years and later acted as chief operating officer in his role as first vice president. He also served as deputy general counsel and as an alternate member of the Federal Open Market Committee; as a staff member of the President's Working Group on Financial Markets, created in the aftermath of the 1987 financial markets crisis; as a member of the Committee on Payments and Settlement Systems of the G-10 central bank governors; as legal adviser to the Basel Committee on Banking Supervision; and as one of the principal drafters of the U.S. International Banking Act of 1978.

Patrikis began his tenure at AIG as special adviser to the chairman in 1998 and became general counsel and senior vice president in 1999. As general counsel, he directed one of the largest corporate law departments in the world, managing all of AIG's corporate, litigation, governance, regulatory, compliance, and enforcement matters. He played an active role in the firm's 2001 acquisition of American General Life Insurance, which further transformed AIG into the world's leading international insurance organization. He also led the team that settled enforcement proceedings brought against AIG by the U.S. Department of Justice, the U.S. Securities and Exchange Commission, the New York State Attorney General, and the New York Insurance Department. Patrikis is a member of the Economics Club of New York, the Council on Foreign Relations, and the Atlantic Legal Foundation. He is recognized as an authority on banking law and regulations, and has served on the banking, insurance, securities regulation, futures regulation, corporate law, and European law committees of the Association of the Bar of the City of New York, and was chair of the Association's Y2K Committee. Patrikis speaks at conferences on these topics on a regular basis and provides testimony on them as an expert witness.

As president and chief executive officer of the Federal Reserve Bank of Cleveland, **SANDRA PIANALTO** has both national and local leadership responsibilities. She participates in the formulation of U.S.

monetary policy and oversees 1,300 employees in Cleveland, Cincinnati, and Pittsburgh who conduct economic research, supervise financial institutions, and provide payment services to commercial banks and the U.S. government. Pianalto joined the Bank in 1983 as an economist in the Research Department. She was appointed assistant vice president of public affairs in 1984, vice president and secretary to the board of directors in 1988, and first vice president and chief operating officer in 1993. She assumed her position as president in 2003. Before joining the Bank, she was an economist at the Federal Reserve Board of Governors and served on the staff of the Budget Committee of the U.S. House of Representatives. Pianalto is active in the Fourth District's civic community. She is immediate past chair and a life director of the board of United Way of Greater Cleveland and serves as vice chair of the board of the Greater Cleveland Partnership. She also serves on the boards of a number of other community organizations, including The Cleveland Foundation, University Hospitals, and the Rock and Roll Hall of Fame and Museum. Pianalto earned a bachelor's degree in economics from The University of Akron and a master's degree in economics from The George Washington University. She is a graduate of the Advanced Management Program at Duke University's Fuqua School of Business and holds honorary degrees from The University of Akron, Baldwin-Wallace College, Kent State University, Ursuline College, Notre Dame College, Cleveland State University, and John Carroll University.

BERNARD SHULL is professor emeritus, Hunter College of the City University of New York, and a special consultant to National Economic Research Associates. Previously, he held various positions with the Board of Governors of the Federal Reserve System, including associate adviser, chief of the Banking Markets Section and director of research studies for the Reappraisal of the Federal Reserve Discount Mechanism. He has also been a senior economist and visiting scholar at the Office of the Comptroller of the Currency, and an economist at the Federal Reserve Bank of Philadelphia. He is the author of a number of books and articles on the structure and performance of the banking industry, financial regulation, and the Federal Reserve, including *The Fourth Branch: The Federal Reserve's Unlikely Rise to Power and Influence* (2005); *Bank Mergers in a Deregulated Environment: Promise and Peril* (2001; with Gerald A. Hanweck); "Mergers and Competition in the Banking Industry," in *Competition Policy and Merger Analysis in Deregulated and Newly Competitive Industries* (2008; Peter C. Carstensen and Susan B. Farmer, eds.); and "The Separation of Banking and Commerce in the United States," *Financial Markets, Institutions & Instruments* 8, no. 3 (1999).

DEBORAH SOLOMON is a reporter in the Washington, D.C., bureau of the *Wall Street Journal*, covering economic policy. Previously, she covered the Securities and Exchange Commission and financial regulation. Solomon joined the *Journal*'s New York bureau in May 2000, covering technology and telecommunications. In 2003, she was a member of a team of *Journal* reporters awarded the Pulitzer Prize in explanatory reporting for a series of stories that exposed corporate scandals. She was also part of a team that won the 2003 Gerald Loeb Award for the paper's coverage of the WorldCom scandal. In 2009, Solomon and other *Journal* reporters won an award from the Society of American Business Editor and Writers in the breaking news category for articles that ran in the paper covering the collapse of Lehman Brothers. More recently, she and other *Journal* reporters were finalists in the National Affairs category for the 2009 Pulitzer Prize.

Solomon began her journalism career as a reporter at the *Birmingham Post-Herald* in 1994, moved to the *Detroit Free Press* in 1997, joined the *San Diego Union Tribune* in May 1998, and five months later moved to the *San Francisco Chronicle*. Before joining the *Journal*, she had been a reporter for *USA Today* since November 1999. She holds a bachelor's degree in journalism from George Washington University.

ELIOT SPITZER graduated from Princeton University in 1981 and Harvard Law School in 1984, where he was an editor of the *Harvard Law Review*. He served as Attorney General of New York from 1999 to 2006, and as Governor of New York from 2007 to 2008.

RICHARD SYLLA is Henry Kaufman Professor of the History of Financial Institutions and Markets and professor of economics at New York University. He is also a research associate of the National Bureau of Economic Research, with a current project on the development of the business corporation in the antebellum United States. Among his books are *The American Capital Market, 1846–1914* (1975); *The State, the Financial System, and Economic Modernization* (1999); *A History of Interest Rates*, (2005); and *Founding Choices: American Economic Policy in the 1790s* (forthcoming, 2010). Sylla has served as editor of the *Journal of Economic History*, chairman of the board of trustees of the Cliometric Society, and president of both the Economic History Association and the Business History Conference. Currently, he is vice chairman of the board of trustees of the Museum of American Finance, a Smithsonian affiliate located at 48 Wall Street in New York.

LOUIS UCHITELLE has covered economics for the *New York Times* since 1987, focusing on labor and business issues and traveling widely in the United States. He shared a George Polk award for "The Downsizing of America," a series of seven articles published in the *Times* in 1996 that explored the layoff phenomenon. He was a visiting scholar at the Russell Sage Foundation in New York in 2002–03, where he began the research for his book *The Disposable American: Layoffs and Their Consequences* (2006). He taught journalism for many years at Columbia University's School of General Studies. Before joining the *Times*, Uchitelle worked for The Associated Press (AP) as reporter, editor, and foreign correspondent in Latin America. Returning to the United States, he served for three years as the head of the AP's business news operation.

FRANK VENEROSO founded Veneroso Associates in 1995 to provide global investment strategies to money managers. Currently, he acts as market strategist for the Global Policy Committee of RCM, a global equity management affiliate of Allianz Global Investors, as well as a strategy adviser to the Finance Committee of the Allianz board. From 1991 to 1994, he was partner in charge of global investment policy formulation at Omega, one of the world's largest hedge funds. Prior to that he provided investment strategy advice to money managers, and economic and policy consultation to international agencies and governments in the areas of money, banking, financial instability and crisis, privatization, and the development and globalization of emerging securities markets. In 1988, Veneroso served as an adviser to PHIBRO, then the leading global commodity trading firm. In 1991, he initiated the Emerging Markets Gold Fund with the International Finance Corporation and Rothschild. His clients have included the World Bank, the International Finance Corporation, the U.S. State Department, and the Organization of American States, and he has advised the governments of Bahrain, Bolivia, Brazil, Chile, Ecuador, Korea, Mexico, Portugal, Thailand, Venezuela, and the UAE. Veneroso graduated cum laude from Harvard University.

PAUL A. VOLCKER JR. served in the federal government for almost 30 years during five presidential administrations. Appointed as chairman of the Board of Governors of the Federal Reserve System by President Carter in 1979, he was reaappointed by President Reagan in 1983. After leaving the Federal Reserve in 1987, he became professor of international economic policy (now emeritus) at Princeton University, and served as chairman of the firm of James D. Wolfensohn & Co. until his retirement in 1996. In 2004, Volcker was called upon to lead an independent investigation into the Iraqi Oil for Food Program of the United Nations, and in 2007, to lead a review of the World Bank's anticorruption efforts. In 2008, President-Elect Obama chose him to head the President's Economic Recovery Advisory Board. Volcker is chairman of the board of trustees of the Group of Thirty (G30), an international organization that examines the impact of economic and financial decisions by the public and private sectors. As chairman of the first National Commission on the Public Service (the "Volcker Commission") in 1988 and the second Volcker Commission in 2002, he established himself as one of the nation's strongest advocates for the revitalization of public service.

KEVIN M. WARSH was appointed to the Federal Reserve Board in February 2006 to fill an unexpired term ending in January 2018. Prior to his appointment, he served as special assistant to the president for economic policy and, from 2002 to February 2006, as executive secretary of the National Economic Council. His primary areas of responsibility included domestic finance, banking, securities, and consumer protection, and he advised the president and senior administration officials on issues related to the U.S. economy and capital markets. Warsh participated in the President's Working Group on Financial Markets and served as the administration's chief liaison to the independent financial regulatory agencies. From 1995 to 2002, he was a member of the mergers and acquisitions department of Morgan Stanley & Co., in New York, serving as vice president and executive director. He served as financial adviser to numerous companies across a range of industry sectors, including manufacturing, basic materials, professional services, and technology. In that capacity, he structured capital markets transactions and facilitated fixed income and equity financings. Warsh received an A.B. in public policy (honors) from Stanford University in 1992, with an emphasis in economics. He studied law, economics, and regulatory policy at Harvard Law School, receiving a J.D. (cum laude) in 1995. He also studied market economics and capital markets at Harvard Business School and MIT's Sloan School of Management.

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