THE BROOKINGS INSTITUTION

A YEAR OF TURMOIL

FED CHAIRMAN BEN BERNANKE REFLECTS ON THE STABILIZATION OF THE FINANCIAL SYSTEM SINCE THE EVENTS OF LAST SEPTEMBER

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Keynote Address:

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P R O C E E D I N G S

MR. TALBOTT: Good morning, everybody. I'm Strobe Talbott, and it's honor and pleasure to welcome you here this morning for an event that is aptly titled "A Year in Turmoil." In general here at Brookings, we try to look ahead, but sometimes it's thoroughly appropriate to look backward since the past is prolog and particularly on the subject that we're going to be talking about today.

As the media is constantly reminding us, we are observing but hardly celebrating the first anniversary of a chain reaction that began with the federal takeover of Fannie Mae and Freddie Mac. That was followed by the failure of Lehman Brothers and then the AIG bailout. The public servant in the eye of this storm throughout is our keynote speaker today, Ben Bernanke. He has been credited with keeping a cool head throughout this crisis and also for implementing policies that helped a global financial collapse, and that's one of many reasons why President Obama has reappointed him as Chairman of the Federal Reserve. The Chairman is going to speak to us, take some questions and then go back to work helping guide our economy toward recovery and renewal.

The Chairman will be followed by a panel discussion that will mark the public debut of two economists who are the new co-directors of our Economic Studies Program here at Brookings, Karen Dynan and Ted Gayer. Karen, who just joined us from the Fed, will moderate the panel which will include Ted, who came to us from Georgetown University's Public Policy Institute. Prior to that, Ted served as an official in the Bush Administration's Treasury Department.

The other panelists are Vincent Reinhart of AEI, Glenn Hutchins of Silver Lake and a Brookings Trustee, and two of our Senior Fellows, Martin Baily and Eswar Prasad. With that, it's my honor to welcome Chairman Bernanke to the podium. Mister Chairman?

MR. BERNANKE: Thank you very much. It's nice to be back at Brookings. As an academic I frequently came here for the

Brookings Macro Meetings, and it's been a very valuable institution over many years in a wide variety of fields.

By the standards of recent decades, the economic environment of a year ago was quite challenging. A year after the onset of the current crisis in August 2007, financial markets remained stressed, the economy was slowing, and inflation driven by a global commodity boom had risen significantly. What we could not fully appreciate then was that the economic and policy environment was about to become vastly more difficult. In the weeks that followed, several systemically critical financial institutions would either fail or come close to failure, activity in some key financial markets would virtually cease, and the global economy would enter a deep recession. My remarks this morning will focus on the extraordinary financial and economic events of the past year as well as on the policy responses both in the United States and aboard.

One very clear lesson of the last year, no surprise of course to any student of economic history by worth noting nonetheless, is that a full-blown financial crisis can exact an enormous toll in both human and economic terms. A second lesson, once again familiar to economic historians, is that financial disruptions do not respect borders. The crisis has been global with no major country having been immune.

History has been full of examples in which the policy responses to financial crises have been slow and inadequate, often resulting ultimately in greater economic damage and increased fiscal costs. In this episode by contrast, policymakers in the United States and around the global responded with speed and force to arrest a rapidly deteriorating and dangerous situation. Looking forward, we must urgently address structural weaknesses in the financial system, in particular in the regulatory framework, to ensure that the enormous costs of the past 2 years will not be borne again.

As of this time last year, financial markets and the economy were continuing to suffer the effects of the ongoing crisis. We know now that the National Bureau of Economic Research has determined that December 2007 was the beginning of a recession. The U.S. unemployment rate had risen to 5-3/4 percent by July, about 1 percentage point above its level at the beginning of the crisis, and household spending was weakening. Ongoing declines in residential construction and house prices and rising mortgage defaults and foreclosures continued to weigh on the U.S. economy, and forecasts of prospective credit losses at financial institutions both here and abroad continued to increase. Indeed, one of the nation's largest thrift institutions, IndyMac, had recently collapsed under the weight of distressed mortgages and investors continued to harbor doubts about the condition of the government-sponsored enterprises Fannie Mae and Freddie Mac, despite the approval of the Congress of open-ended support for the two firms.

Notwithstanding these significant concerns, however, there was little to suggest that market participants saw the financial situation as about to take a sharp firm for the worse. For example, although indicators of default risk such as interest rate spreads and quotes on credit default swaps remained well above historical norms, most such measures had declined from earlier peaks, in many cases by substantial amounts. And in early September when the target for the federal funds rate was 2 percent, investors appeared to see little chance that the federal funds rate would be below 1-3/4 percent 6 months later. That is, as of this time last year, participants evidently believed it improbable that significant additional monetary stimulus would be needed in the United States.

Nevertheless, in September 2008, the financial crisis intensified dramatically. Despite the steps that had been taken to support Fannie Mae and Freddie Mac, their condition continued to worsen. In early September, the companies' regular placed both firms into conservatorship and the Treasury used its recently enacted authority to provide the firms with massive financial support. Shortly thereafter, several additional financial firms also came under heavy pressure from creditors, counterparties and customers. The Federal Reserve has consistently maintained the view that the disorderly failure of one or more systemically important institutions in the context of a broader financial crisis could have extremely adverse consequences for both the financial system and the economy. We have therefore spared no effort within our legal authorities and in appropriate cooperation with other agencies to avert such a failure. The case of the investment bank, Lehman Brothers, proved exceptionally difficult, however. Concerted government attempts to find a buyer for the company or to develop an industry solution proved unavailing, and the company's available collateral fell well short of the amount needed to secure a Federal Reserve loan of sufficient size to meet its funding needs. As the Federal Reserve cannot make an unsecured loan and as the government as a whole lacked appropriation resolution authority or the ability to inject capital, the firm's failure was unfortunately unavoidable. The Federal Reserve and the Treasury were compelled to focus instead on mitigating the fallout from the failure, for example, by taking measures to stabilize the tri-party repo market.

In contrast, in the case of the insurance company AIG, the Federal Reserve judged that the company's financial and business assets were adequate to secure an $85 billion line of credit, enough to avert its imminent failure. Because AIG was counterparty to many of the world's largest financial firms, a significant borrower in the commercial paper market and other debt markets, and a provider of insurance products to tens of millions or customers, its abrupt collapse likely would have intensified the crisis substantially further at a time when the U.S. authorities had not yet obtained the necessary fiscal authorities to deal with a massive systemic event.

The failure of Lehman Brothers and the near failure of AIG were, however, dramatic but hardly isolated events. Many prominent firms struggled to survive as confidence plummeted. The investment bank Merrill Lynch, under pressure in the wake of Lehman's failure, agreed to be acquired by Bank of America. The major thrift institution Washington Mutual was resolved by the FDIC in an assisted transaction. And the large commercial bank Wachovia after experiencing liquidity outflows agreed to be sold. The two largest remaining free-standing investment banks, Morgan Stanley and Goldman Sachs, were stabilized when the Federal Reserve approved on an emergency basis their applications to become bank holding companies.

Nor were the extraordinary pressure on financial firms during September and early October confined to the United States. For example, on September 18, the U.K. mortgage lender HBOS with assets of more than one-trillion dollars was forced to merge with Lloyds TSB. On

September 29, the governments of Belgium, Luxembourg and the Netherlands effectively nationalized Fortis, a banking and insurance firm that had assets of around one-trillion dollars. The same day, German authorities provided assistance to Hypo Real Estate, a large commercial real estate lender, and the British government nationalized another mortgage lender Bradford & Bingley. On the next day, September 30, the governments of Belgium, France and Luxembourg injected capital into Dexia, a bank with assets of more than 700-billion dollars, and the Irish government guaranteed the deposits and most other liabilities of six Irish financial institutions. Soon thereafter, the Icelandic government, lacking the resources to rescue the three largest banks in that country, put them into receivership and requested assistance from the IMF and other Nordic governments. In mid-October, the Swiss authorities announced a rescue package for UBS, one of the world's largest banks that consisted of a capital injection and a purchase of assets.

The growing pressures were not limited to banks with significant exposure to U.S. or U.K. real estate or to securitized assets. For example, unsubstantiated rumors circulated in late-September that some large Swedish banks were having trouble rolling over wholesale deposits, and on October 13, the Swedish government announced measures to guarantee bank debt and to inject capital into banks.

The rapidly worsening crisis soon spread beyond financial institutions into the money and capital markets more generally. As a result of losses on Lehman's commercial paper, a prominent money market mutual fund announced on September 16 that it had "broken the buck," that is, its net asset value had fallen below one dollar per share. Over the subsequent several weeks, investors withdrew more than 400-billion dollars from so-called prime money market mutual funds. Conditions in short-term funding markets including the interbank market and the commercial paper market deteriorated sharply. Equity prices fell precipitously and credit risk spreads jumped. The crisis also began to affect countries that had thus far escaped the worse effects. Notable, financial markets in emerging-market economies were whipsawed as the flight from risk led capital inflows to those countries to swing abruptly to outflows.

Authorities in the United States and around the globe moved quickly to respond to this new phase of the crisis, although the details differed according to the character of financial systems. The financial system of the United States gives a much greater role to financial markets and to nonbank financial institutions than is the case in most other nations which rely primarily on banks. Thus, in the United States, a wider variety of policy measures were needed than in some other nations.

In the United States the Federal Reserve established new liquidity facilities with the goal of restoring basic functioning in various critical markets. Notably, on September 19, the Fed announced the creation of a facility aimed at stabilizing the money market mutual funds, and the Treasury unveiled a temporary insurance program for those funds. On October 7, the Fed announced the creation of a backstop commercial paper facility which stood ready to lend against highly rated commercial paper for a term of 3 months. Together, these steps helped to stem massive outflows from the money market mutual funds and to stabilize the commercial paper market.

During this period, foreign commercial banks were a source of heavy demand for U.S. dollar funding, thereby putting additional strain on global bank funding markets, including U.S. markets and further squeezing credit availability in the United States. To address this problem, the Federal Reserve expanded the temporary swap lines that had been established earlier with the European Central Bank and the Swiss National Bank, and established new temporary swap lines with seven other central banks in September, and five more in late-October, including four in emerging-market economies. In further coordinated action, on October 8, the Federal Reserve and five other major central banks simultaneously cut their policy rate by 50 basis points.

The failure of Lehman Brothers demonstrated the liquidity provision by the Federal Reserve would not be sufficient to stop the crisis; substantial fiscal resources were necessary. On October 3 on the recommendation of the administration and with the strong support of the Federal Reserve, the Congress approved the creation of the Troubled Asset Relief Program or TARP with the maximum authorization of $700 billion to support the stabilization of the U.S. financial system. Markets remained highly volatile and pressure on financial institutions was intense through the first weeks of October. On October 10 in what would prove to be a watershed in the global policy response, the Group of 7 finance ministers and central bank governors meeting here in Washington committed in a joint statement to work together to stabilize the global financial system. In particular, they agreed to prevent the failure of systemically important financial institutions, to ensure that financial institutions had adequate capital and access to funding including public capital if necessary, and to put in place deposit insurance and other guarantees to restore the confidence of depositors. In the following days, many countries around the world announced comprehensive resource plans for their banking systems that built on the G-7 principles. To stabilize funding, during October more than 20 countries expanded their deposit insurance programs and many also guaranteed nondeposit liabilities of banks. In addition, amid mounting concerns about the solvency of the global banking system, by the end of October, more than dozen countries had announced plans to inject capital into banks, and several announced plans to purchase or guarantee bank assets. The comprehensive United States response announced on October 14 included capital injections to both large and small banks by the Treasury, a program which allowed banks and bank holding companies for a fee to issue FDIC guaranteed debt, the extension of deposit insurance to noninterest-bearing transactions deposits of any size, and the Federal Reserve's continued commitment to provide liquidity as necessary to stabilize key financial institutions and markets. This strong and unprecedented international policy response proved broadly effective. Critically, it averted the imminent collapse of the global financial system, an outcome that seemed all too possible to the finance ministers and central bankers who gathered in Washington on October 10.

However, although the intensity of the crisis moderated and the risk of systemic collapse declined in the wake of the policy response, financial conditions remained highly stressed. For example, although short-term funding spreads in global markets began to turn down in October, they remained elevated into this year. And although generalized pressures on financial institutions subsided somewhat, government actions to prevent the disorderly failures of individual systemically significant institutions continued to be necessary. In the United States for example support packages were announced for Citigroup in November, and Bank of America in January. Broadly similar support packages were also announced for some large European institutions including firms in the United Kingdom and in the Netherlands.

Although concerted policy actions averted much worse outcomes, the financial shocks of September and October nevertheless severely damaged the global economy, starkly illustrating the potential effects of financial stress on real economic activity. In the fourth quarter of 2008 and the first quarter of this year, global economic activity recorded its weakest performance in decades. In the United States, real GDP plummeted at nearly a 6 percent average annual pace over those two quarters, an even sharper decline that had occurred in the 1981-1982 recession. Economic activity contracted even more precipitously in many foreign economies with real GDP dropping at double-digit annual rates in some cases. The crisis affected economic activity not only by pushing down asset prices and tightening credit conditions, but also by shattering household and business confidence around the world.

In response to these developments, the Federal Reserve expended its remaining ammunition in its traditional arsenal of money policies by bringing the federal funds rate down in steps to a target range of 0 to 25 basis points as of December of last year. It also took several measures to further supplement its traditional arsenal. In particular, on November 25 the Fed announced that it would purchase up to $100 billion of debt issued by the housing-related GSEs, and up to $500 billion of agency-guaranteed mortgage-backed securities, programs that were expanded substantially and augmented by a program of Treasury purchases in March. The goal of these purchases was to provide additional support to private credit markets, particularly the mortgage market. Also on November 25, the Fed announced the creation of the term asset-based securities loan facility, popularly known as TALF, a facility which aims to improve the availability and affordability of credit to households and small businesses and to help facilitate the financing and refinancing of commercial real estate properties. The TALF has shown early success in reducing risk spreads and stimulating new securitization activity for assets included in this program.

Foreign central banks also cut policy rates to very low levels and implemented unconventional policy responses. For example, the Bank of Japan began purchasing commercial paper in December and corporate bonds in January. In March, the Bank of England announced that it would purchase government securities, commercial paper, and corporate bonds, and the Swiss National Bank announced that it would purchase corporate bonds and foreign currency. For its part, the ECB injected more than 400 billion euros of 1-years funds in a single auction in late-June. In July, the ECB began purchasing covered bonds which are bonds that are issued by financial institutions and guaranteed by specific asset pools. Actions by central banks augmented large fiscal stimulus packages in the United States, China, and a number of other countries.

On February 10, Treasury Secretary Geithner and the heads of the federal banking agencies unveiled the outlines of a new strategy for ensuring that banking institutions could continue to provide credit to households and businesses during the financial crisis. A central component of that strategy was the exercise that came to be known as the bank stress test. Under this initiative, the banking regulatory agencies undertook a forward-looking, simultaneous evaluation of the capital positions of 19 of the largest bank holding companies in the United States with the Treasury committing to provide public capital as needed. The goal of the supervisory assessment was to ensure that the equity capital held by these firms was sufficient in both quantity and quality to allow those institutions to withstand a worse-than-expected macroeconomic environment over the subsequent 2 years and yet remain healthy and capable of lending to creditworthy borrowers. This exercise, unprecedented in scale and scope, was led by the Federal Reserve in cooperation with the Office of the Controller of the Currency and the FDIC. Importantly, the agency's report made public considerable information on the projected losses in revenues of the 19 firms, allowing private analysis to judge for themselves the credibility of the exercise. Financial-market participants responded favorably to the announcement of the results, and many of the tested banks were subsequently able to tap public capital markets.

Overall, the policy actions implemented in recent months have helped stabilize a number of key financial markets both in the United States and abroad. Short-term funding markets are functioning more normally, corporate bond issuance has been strong, and activity in some previously moribund securitization markets has picked up, stock prices have partially recovered, and U.S. mortgage rates have declined markedly since last fall. Critically, fears of financial collapse have receded substantially. After contracting sharply over the past year, economic activity appears to be leveling out both in the United States and abroad, and the prospects for a return to growth in the near term appear good.

Notwithstanding this noteworthy progress, critical challenges remain. Strains persist in many financial markets across the globe, financial institutions face significant additional losses, and many businesses and households continue to experience considerable difficulty in gaining access to credit. Because of these and other factors, the economic recovery is likely to be relatively slow at first with unemployment declining only gradually from high levels.

How should we interpret the extraordinary events of the past year, particularly the sharp intensification of the financial crisis in September and October? Certainly, fundamentals played a critical role in triggering those events. As I noted earlier, the economy was already in recession and it had weakened further over the summer. The continuing dramatic decline in house prices and rising rates of foreclosure raised serious concerns about the value of mortgage-related assets and thus about large potential losses at financial institutions. More broadly, investors remained distrustful of virtually all forms of private credit, especially structured credit products and other complex or opaque instruments.

At the same time, however, the events of September and October also exhibited some features of a class panic of the type described by Bagehot and many others. A panic is a generalized run by providers of short-term funding to a set of financial institutions possibly resulting in the failure of one or more of those institutions. The historically most familiar type of panic which involves runs on banks by retail depositors has been made largely obsolete by deposit insurance or guarantees and the associated government supervision of banks. But a panic is possible in any situation in which longer-term illiquid assets are financed by short-term liquid liabilities and in which suppliers of short-term funding either lose confidence in the borrower or become worried that other short-term lenders may lose confidence. Although in a certain sense a panic may be collectively irrational, it may be entirely rational at the individual level as each market participant has a strong incentive to among the first to the exit. Panics arose in multiple contexts last year. For example, many financial institutions, notably including the independent investment banks, financed a portion of assets through short-term repo agreements. In repo agreements, the asset being financed serves as a collateral for the loan and the maximum amount of the loan is the current assessed value of the collateral less a haircut. In a crisis, haircuts typically rise when short-term lenders attempt to protect themselves from possible declines in asset prices, but this individually rational behavior can set off a run-like dynamic. As high haircuts make portfolios more difficult, some borrowers may have no option but to sell assets into illiquid markets. These forced sales drive down asset prices, increase volatility, and weaken the financial positions of all holders of similar assets which in turn increases the risk borne by repo lenders and thus increases the haircuts that they demand. This unstable dynamic was apparent around the time of the near failure of Bear Stearns in March 2008, and haircuts rose particularly sharply during the worsening of the crisis in mid-September.

As we saw last fall, when a vicious funding spiral of this sort is at work, falling asset prices and the collapse of lender confidence may create financial contagion even between firms without significant counterparty relationships. In such an environment, the line between insolvency and illiquidity may be quite blurry.

Panic-like phenomena occurred in other contexts as well. Structured investment vehicles and other asset-backed programs that relied heavily on the commercial paper market began to have difficulty rolling over their short-term funding very early in the crisis, forcing them to look to bank sponsors for liquidity or to sell assets. Following the Lehman collapse, panic gripped the money market mutual funds and the commercial paper market as I have discussed. More generally during the crisis, runs of uninsured creditors have created severe funding problems for a number of financial firms. In some cases, runs by creditors were augmented by other types of runs, for example, by prime brokerage customers of investment banks concerned about the funds that they held in margin accounts. Overall, the role played by panic helps to explain the remarkably sharp and sudden intensification of the financial crisis last fall as well as its rapid global spread and the fact that the abrupt deterioration of financial conditions was largely unforecasted by standard market indicators.

The view that the financial crisis had elements of a classic panic particularly during its most- intense phases helped to motivate a number of the Federal Reserve's policy actions. Bagehot instructed central banks, the only institutions that have the power to increase the aggregate liquidity in the system, to respond to panics by lending freely against sound collateral. Following that advice from the beginning of the crisis, the Fed like other central banks has provided large amounts of short-term liquidity to financial institutions. As I have discussed, it also provided backstop liquidity support for money market mutual funds and the commercial paper market, and added significant liquidity to the system through its purchases of longer-term securities. To be sure, the provision of liquidity alone can by no means solve the problems of credit risk and credit losses, but it can reduce liquidity premiums, help restore the confidence of investors, and thus promote stability. It is noteworthy that the use of Fed liquidity facilities has declined sharply since the beginning of the year, a clear market signal that liquidity pressures are easing and market conditions are normalizing.

What does this perspective on the crisis imply for future policies and regulatory reforms? We've seen during the last two years that the complex interrelationships among credit market and funding risks of key players in financial markets can have far-reaching implications particularly during a general crisis of confidence. In particular, the experiences underscore that liquidity risk management is as essential as capital adequacy and credit and market risk management particularly during times of intense financial stress. Both the Basel Committee on Banking Supervision and the U.S. bank regulatory agencies have recently issued guidelines for strengthening liquidity risk management at government institutions. Among other objectives, liquidity guidelines must take into account that risks that inadequate liquidity planning by major financial firms pose for the broader financial system, and they must ensure that these firms do not become excessively reliant on liquidity support from the central bank.

But liquidity risk management at the level of the firm no matter how carefully done can never fully protect against systemic events. In a sufficiently severe panic, funding problems will almost certainly arise and are likely to spread in unexpected ways. Only central banks are well positioned to offset the ensuing sharp decline in liquidity and credit provision by the private sector. They must be prepared to do so.

The role of liquidity in systemic events provides yet another reason why in the future a more system-wide or macro-prudential approach to regulation is needed. The hallmark of a macro-prudential approach is its emphasis on the interdependencies among firms and markets that have the potential to undermine the stability of the financial system, including the linkages that arise between short-term funding markets and other counterparty relationships such as over-the-counter derivatives contracts. A comprehensive regulatory approach must examine those interdependencies as well as the financial conditions of individual firms taken in isolation.

During the past year the world has been through the most severe financial crisis since the Great Depression. The crisis in turn sparked a deep global recession from which we are now only beginning to emerge. As severe as the economic impact has been, however, the outcome could have been decidedly worse. Unlike in the 1930s when the policy was largely passive and political divisions made international economic and financial cooperation difficult, during the past year monetary, fiscal and financial policies have been aggressive and complementary. Without these speedy and forceful actions, last October's panic would likely have continued to intensify, more major financial firms would have failed, and the entire global financial system would have been at serious risk. We cannot know for sure what the economic effects of these events would have been, but all that we know about the effects of financial crisis suggests that the resulting global downturn could have been extraordinarily deep and protracted.

Although we have avoided the worst, difficult challenges still lie ahead. We must work together to build on the gains already made to secure a sustained economic recovery, as well as to build a new financial regulatory framework that will reflect the lessons of the crisis and prevent an occurrence of the events in the past two years.

I hope and I expect that when we review developments, perhaps at another conference a year from now, we'll be able to claim substantial progress towards both of these objectives. Thanks for your attention.

MR. TALBOTT: Thank you, Mr. Chairman. We hereby invite you to come back and lead us in that discussion a year from now, presumably with a more upbeat title to the proceedings.

MR. BERNANKE: Absolutely.

MR. TALBOTT: The Chairman has agreed to spend another 15 minutes with us, taking some questions from all of you. After I signal the last question and he answers that, I'm going to ask that all of you remain seated for two reasons; one, because there's more to come, and also, so that that he can expeditiously make his way out.

And while he and I are leaving, Karen will lead the panel up here to set up for the next part of the program. So with that, let's turn it over to all of you. Yes, sir. Wait until you get a microphone, please.

MR. TRINKLE: Thank you very much. Do you have any ideas at this point as to what size of the shadow banking system will be under the revised macro prudential regime that's to be developed by the G20, the federal – the central banks of the world and the BIS over the coming years?

MR. BERNANKE: Would you identify yourself, please?

MR. TRINKLE: Garth Trinkle, Department of Commerce.

MR. BERNANKE: No, I don't have any kind of exact estimate, obviously. Clearly, the shadow banking system has been a very big part of our credit system for a long time, and the contraction in that shadow banking system has been at least as important, if not more important, than the problems in the banking system in creating the problems with credit availability that we currently have.

I imagine that the shadow banking system, at least in the medium term, will not return to the size it was before. The changes in accounting standards and regulatory standards will reduce the benefits to off balance sheet type of lending by banks.

Certainly there will be new looks at the kinds of securitizations that take place. I don't expect to see highly complex structured credit products becoming a major source of funding in the near term. But, on the other hand, there are a lot of securitizations that have proved their volubility, mostly plain vanilla securitizations of various types, and consumer products, consumer lending, student loans and a variety of other things.

And, indeed, our TALF program at the fed has both supported substantial activity in these more vanilla products in the securitization market, and indeed, we are seeing now, very encouraging, we're seeing more activity taking place completely outside of the feds program. We're not supported in any way by the feds program. So my forecast would be that the shadow banking system, securitization markets will come back, they'll be a substantial part of the U.S. credit system, but they will certainly, at least in the medium term, be simpler, smaller, less opaque, subject to more oversight by regulators, and those things I think will constrain its growth for a period of time.

MR. TALBOTT: Martin.

MR. BAILY: You mentioned liquidity risk management, and as a compliment of capital requirements, and the latest treasury statement also mentions liquidity risk management. I didn't understand from their statement what that actually meant, how they were going to define liquidity, and what liquidity risk management would look like.

Maybe the Basel statement has it all worked out and I just have to read that, but I'd be grateful if you could tell us a little about how you would actually do risk management, liquidity risk management. Are you going to have rules about the amount of short term liabilities and that kind of thing?

MR. BERNANKE: Yes; the Basel Committee put out a set of principles, fairly detailed principals, on liquidity risk management, and those are being both informally and formally incorporated to guidance and supervision by the Federal Reserve and other banking agencies here in the United States.

The basic idea is not to rely on markets being open and liquid at all times. I think one of the problems with our micro prudential or narrowly focused supervision was, we would look at the condition of the individual bank and say, well, if necessary, they can always go to this market or that market or sell assets and so on, and, of course, in a general crisis, that becomes much less possible, you know.

You know, very few people anticipated the extent to which the repo market would become non-viable in the crisis. So the general nature of liquidity risk management is to look at scenarios in which normal liquidity sources or markets are not functioning properly, to look at what the company's liquidity needs are going to be, both in terms of possible short term financing, in terms of other obligations coming due, and making sure that there is adequate planning a provision, perhaps in the form of simply holding a lot of very liquid assets, or in terms of managing more carefully the sources of liquidity and the uses of liquidity, to ensure that a company can manage through even several months of very intense conditions. And I think that's very important because, again, historically, solvency and liquidity have been the two pillars of stability in the financial system.

We have focused internationally very much on capital, which is very important, and, indeed, a strongly capitalized firm is less likely to run into liquidity problems. But that being said, we have seen in the recent crisis situations where markets and lenders were not discrimination to the extent you would hope, and that even firms which, in retrospect, appear to have been thoroughly sound from a capital perspective who are facing severe risks from a liquidity perspective.

And finally, just one last comment, is that, you know, we are so, you know, historians and all of us who have seen It's A Wonderful Life on television know – we're so focused on the, you know, the deposit or retail one lighting outside of the bank, and of course, that was the historical form of run, but in the modern financial system, so much funding is wholesale funding, takes all different kinds of forms, which is not insured funding, and therefore, is prone to run, and we need to make sure that banks and other financial institutions can withstand even very adverse liquidity conditions for a period of time.

MR. TALBOTT: There was a question right over here. Yes, sir.

MR. CHASEN: Thanks very much, Mr. Chairman. A question about –

MR. TALBOTT: ID yourself.

MR. CHASIN: Dana Chasin from OMB Watch. A question about financial sector regulatory reform. In light of the President's comments yesterday in New York, that interested parties who might have reason to resist certain aspects of the reform proposals that he's put forward ought to take a responsible attitude, you might recall his making that reference. Does this have any application to the regulatory community? Is there any – what would you – if you could maybe express your views regarding the appropriate role of the regulatory community in the discussions and the debate surrounding regulatory reform going forward.

MR. BERNANKE: Well, I think, inevitably, the regulatory community needs to be part of the discussion. We have an awful lot of information and experience that should be called on. And the Federal Reserve, in particular, for our part, has advanced a number of ideas, supported other ideas, including, I should emphasize, reform proposals like the resolution authority which have nothing to do with the fed's own powers or status. So I think, inevitably, the regulatory agencies need to be part of this process.

Of course, as with all parties involved, there are legitimate interests and there interests, you know, which are more self-interested than publicly interested, and that's true with everybody, including all the members of Congress who are involved in the discussion.

But I think – my sense is that while maybe the focus on regulatory reform in the Congress has not yet been as intense as I expect it will be because of other things that Congress has been concerned with, I feel quite confident that a comprehensive reform will be forthcoming.

This has just been too big a calamity and too serious a problem, and, clearly, regulatory problems were part of it, not the only part, but – not just in terms of the effectiveness of individual regulators, but just in terms of the entire structure of the financial regulatory system. So I remain pretty optimistic that a comprehensive reform will be forthcoming. And the Federal Reserve's perspective is that we want, you know, we don't want to be in the situation we were in last October and September, and so, you know, we're very interested in trying to support a reform that will be effective and that will go a long way to preventing this kind of crisis of occurring in the future.

MR. TALBOTT: Anybody over here? Yes, Ted.

MR. GAYER: Hi, Ted Gayer, thanks for coming. You mentioned the blurry line between insolvency and illiquidity, so I'm wondering whether or not you feel you had at the time and you have now the tools necessary to make it. It's a blurry line, but it is a line. So do you feel that the fed has the tools to make the distinction between insolvency and illiquidity of a financial institution?

And then related, you mentioned – which I think applies to liquidity; I'm wondering if we have a similar victim to guide us on the insolvency when we're clear on the insolvency line of that blurry line.

MR. BERNANKE: Well, I think the blurry line is a fundamental fact about financial markets less than a capability of the Federal Reserve. In particular, what we saw in this crisis was financial markets that were normally liquid becoming very illiquid, so in economic speak, there were big liquidity premiums on certain kinds of assets. Those are assets, what may well have been sound assets if allowed to mature and, you know, to perform. But in a situation where they had to be sold in a fire sale type of situation might well have brought less value than if held. And so there wasn't interaction, and in a highly illiquid situation, firms that might otherwise be solvent, at least in the short run, may not be solvent, and I think that's exactly – this is not a deep philosophical insight, this is what's true about the typical bank run.

We know, at least in theory, that a bank that has illiquid long term loans on its asset side of the balance sheet and liquid short term deposits on its liability side, we know – I mean there's a lot of debate about exactly how often bank runs are fundamentally driven and so on, but we know, at least in principal, that there could be a run that is driven by sun spots or some kind of – and event, a rumor let's say, and that if the bank is – doesn't have access to other liquidity and it's forced to sell its assets on a fire sell basis, it could, in fact, then be insolvent, even though, in some sense, if there had not been an illiquidity problem, it could have been solvent in the longer term. So I think the distinction is a little blurry in reality, and unavoidably, and it's why central banks need to try to do what we can to make sure the liquidity side is handled.

We don't have any – the solvency part, the Federal Reserve and the central banks in general don't have any scope. On the solvency side, I think, you know, we have been forced into the government broadly, but not the United States.

One of the points I was really trying to make today is that, despite all the focus on what happened in the U.S., this was a global event and many of these interventions occurred throughout Europe, for example, that these interventions were necessary, given the short term alternatives. But it's very important that financial reform avoid the need for these kinds of interventions except in the most extraordinary circumstances.

So, in particular, two ways to do that, to address the too big to fail problem, which is a huge problem, we have to deal with that problem, you know, first, tougher oversight, which includes more capital, more control of risk and so on that reduces the risk of insolvency just on that side, but also, in the case where insolvency occurs, one of the key ideas I think of the proposed financial reforms is to have some kind of special resolution regime that would allow the government to wind down, much as it does now banks, any financial – systemically critical financial institution in a way that would impose market discipline, impost losses on creditors, but would avoid the disorderly, chaotic type of collapse that we saw with Lehman a year ago. So we want to keep the government out of providing capital, and those are two ways to minimize the risk of that.

MR. TALBOTT: Mr. Chairman, I'm going to take the privilege of asking the last question and it's about employment, or more to the point, unemployment. I do so because we're told to expect an improvement in job statistics to be at the trailing edge of our recovery, and also, when you return to this podium a year from now to keynote our follow-up discussion, we'll be less than two months away from the 2010 election. So could you say a little bit about the implications that you draw from our current and past experience on the employment front?

MR. BERNANKE: Well, let me just first say that economic forecasting is not one of your most precise sciences, and so everything –

MR. TALBOTT: Even here at Brookings.

MR. BERNANKE: Even here at Brookings, and so we are forced – because policy must be forward looking, because policy has to take into account the lags of effects of monetary policy actions and so on, we have to do our very best to try to figure out what the most likely scenarios are, recognizing that day by day, as new information comes in, we may have to revise that.

Having said that, I've seen some agreement among the forecasting community at this point that we are in a recovery, that we will see growth in the third quarter continuing, and that growth will continue into 2010.

But the general view of most forecasters is that that pace of growth in 2010 will be moderate, less than you might expect given the depth of the recession, because of ongoing headwinds, including still ongoing financial and credit problems, you know, deleveraging by households, the needs for adjustments in the economy, sectoral adjustments in the economy, the need for a fiscal exit at some point, many, many factors that will likely, at least based on current information, make the 2010 recovery moderate, and in particular, not much faster than sort of the underlying potential growth rate of the economy. And the arithmetic is that unless the economy grows, you know, significantly faster than its longer term growth rate, it'll be relatively slow in creating jobs over and above those needed to employ people coming into the labor force, and therefore, the unemployment rate would tend to come down quite slowly. So that's a risk, that's a possibility.

Of course, there is on both sides of that forecast; we could have a stronger recovery, we could have a weaker recovery, but if we do, in fact, see moderate growth, but not growth much more than the underlying potential growth rate, then, unfortunately, unemployment will be slow to come down. It will come down, but it may take some time.

Obviously, that's a very serious concern, and that's one reason why, even though from a technical perspective the recession is very likely over at this point, it's still going to feel like a very weak economy for some time as many people will still find that their job security and their employment status is not what they wish it was, and so that's a challenge for us and all policy-makers going forward.

MR. TALBOTT: Well, you've certainly helped us understand it better. Everybody in this room, and it certainly goes for my colleagues here at Brookings, greatly appreciate someone who can combine outstanding scholarship, careful study of the past for the lessons it gives for the future, a real sense of what extraordinary public service is, and wise public policy, and we just all want to thank you for embodying those values and representing them so well here today. Thanks for your lucidity and your candor and your cautious optimism. Please join me in thanking the Chairman, and stay seated after we leave.

MR. BERNANKE: Thank you for the invitation.

(Pause)

MS. DYNAN: Hi, I'm Karen Dynan, Vice President and Co-Director of the Economic Studies Program here at Brookings. I also have the pleasure of being the Moderator of the panel part of this event today.

Our speakers today share a common interest in financial issues, but each brings his own perspective and area of expertise to the panel.

So just a few short introductions, starting on my left we have Vincent Reinhart, Resident Scholar at AEI and former Director of the Division of Monetary Affairs with the Federal Reserve Board; Glenn Hutchins, Founder and Managing Partner of Silver Lake Partners. To my right we have Martin Baily, Senior Fellow at Brookings, head of the Brookings Initiative on Business and Public Policy, and former Chairman of the White House Council of Economic Advisors; Ted Gayer, who, as Strobe already mentioned, is Co-Director of the Brookings Economic Studies Program; and Eswar Prasad, a Brookings Senior Fellow and a Professor at Cornell University.

Okay. So that said, we're going to begin with some brief opening remarks by each of our panelists. We'll start with Vincent, who is going to share some thoughts on the policy response to the crisis with some particular emphasis on the issue of when to rescue and when not to.

MR. REINHART: Thank you, Karen. We meet today on the anniversary of a colossal failure. It has shaped financial officials' response to the crisis, legislators' attitudes toward reform, and the public's perception of fairness. The real failure is that we have fundamentally misunderstood the events surrounding the bankruptcy of Lehman

Brothers. We have inverted a morality tale about individual recklessness to become one about collective culpability through an inaction.

Lehman failed, as it should have failed. That we ex-post made it the fulcrum of the financial crisis misrepresents events in three material ways. First, it's hard to remember, but 18 months ago, no one really believed that the Federal Reserve would ever lend to an investment bank, in part because it had not done so in 60 years. We still do not know why the fed went to – just as we still do not know what it owns in the maiden rain facilities created for that purpose.

Were there alternatives short of lending to a non-depository? They have never said. And what they did seems like the twisting of a lending facility designed to deal with illiquidity into an equity acquisition vehicle coping with insolvency. This was no walk down – Lombard Street.

That action put a – to the notion that many institutions were too big or too interconnected to fail. It also set the mold for future government action. In managed resolutions that followed, government support would protect debt holders fully, but wipe out shareholders. Protecting lenders, the theory ran, would prevent contagion through credit markets.

The problem is that this strategy encouraged another kind of financial run. Knowing the government's play book, speculators only had to pick out the next weakest antelope in the herd, they sold the equity short and bought the deck, precipitating the next installment of the crisis. Thus, despite the hard work of officials over many a weekend, Mondays never seemed tranquil. Therein lies the second problem with stories that put all the weight on Lehman.

As the crisis wore on and the bailout got bigger and bigger, appointed officials recognized the need to get the approval of the Congress. Since the political system does not get into gear very easily, that required saying no to someone sometime. They drew the line at Lehman. They might have been able to go for a few more weeks and let the bill get bigger, but ultimately, they would have had to stop, and when they did, expectations would be dashed and markets would adjust. The consequences would only be which anniversary we were celebrating.

Third, not helping Lehman shifted participant's perception about the parameter of the safety net, that's for sure. But within that same week, government officials would act in a way that elevated uncertainty about the form of intervention. In the putative resolution of Wachovia, regulators arranged that debtors would be kept whole. Different regulators required hair cuts for the facilitated takeover of Washington Mutual. Those actions, well within the regulated sphere, were as consequential as Lehman's failure for the – bank market. Moreover, official comments to justify their actions and to build support for congressional action seriously damaged confidence at the same time.

But we like neat stories in a tight timeline. We also are at the mercy of event studies. If stock prices go down, we need to trace out a path back to that trigger. But Lehman's failure was an event of our own making that marked the culmination of a process involving decisions by an elected official, and it was not an isolated policy misstep. We are compounding those costs by elevating its importance.

MS. DYNAN: Thank you, Vincent. Moving on now to Glenn. Glenn brings to the panel the perspective of someone who is actively engaged in the financial market. Glenn is going to offer some remarks on where markets stand today.

MR. HUTCHINS: So this is – up to the panel. Karen – if you go too long, do you want me to tell you. I said my reputation definitely preceded me. But I will show you my prepared remarks are much shorter than my colleagues. Today I think the Chairman got it just about right, we're at a very – we're experiencing stability both in financial markets and ongoing corporate performance. But the overwhelming sense of market participants right now is that we're at a very low level of activity, that activity is no longer in freefall, but it's also not in – doesn't experience the characteristics of sustainable gains, and the market feels that it's quite vulnerable to further exogenous shock. Markets are on a hair trigger.

And so another event, not unlike Lehman, perhaps something in the geopolitical sphere with a bloat of confidence could be – could eventuate in another potentially significant downturn. So things are stable, but weak and vulnerable.

The big question right now is, what's the duration of this low level of activity, how long will it be before we get to – we have the underlying conditions for sustained growth, how long will we be in a period of relatively flat economic activity below trend growth – that the Chairman referred to as not making a significant dent in unemployment. That has both – very significant political concerns, but also very meaningful market and economic concerns, which I will get to in just a second. My general – my personal view is that, give or take six months in the 24 months away kind of time period, as we work our way through all the imbalances and head winds that the Chairman referred to. The most vexing question out there is whether the U.S. consumer; there are obviously some very, very significant issues that – these sort of forms people tend to not think a lot about, both the human and social consequences of rising unemployment, rising poverty, a decade of stagnant – income – now by declining median incomes is exactly – social cost and one thing we need to be very mindful of.

I don't mean to – over that because it's important, but the big question from the financial markets perspective is, will the U.S. consumer return to its status as the locomotive for global growth, and I personally am quite skeptical about that.

The epigram I use is, the baby boomers lost about 25 to 30 percent of its net worth on the eve of its retirement, and it's unlikely to go back to the kind of borrowing and spending it had in the past. That means a very, very different shape. To the nature of our economic recovery, both its local – domestic manifestations and its geographic location. What will replace the U.S. consumer? It's obvious to me we really only have one path for that, which is innovation. The transition to a – from a consumption led to a savings and investment led society and the associate innovation. The good news is that there's enormous strength and innovative sectors of our economy as to how the consumer -- have been struggling. Technology coming to the United States and around the world have been investing aggressively. And you see some of the manifestations in the consumer economy, where there's things like the – or the iPhone.

But there's also a massive amount of manifestations, those in the industrial economy, things like virtualization, cloud computing, which we can talk about. But the big issue is going to be now, I think, to look forward and create the economic, political, and social conditions under which that innovation can be an engine of growth to replace the consumer, something which folks in this town have not yet begun to focus on. I think it's going to be very, very important.

And the final point – but it's there. And the final point, if you're a global investor thinking about economic activity all around the world, there are very big issues today associated with the future of – for the dollar and interest rates. Given the massive amount of debt – that's occurring in this country, the massive amount of savings to build up outside the United States, and the need to pivot at some point to fiscal responsibility in order to be able to sustain our lifestyle means that the implications for the value of the dollar and potential increases in interest rates finance all this stuff is very, very much on everybody's minds, and it makes global investors very wary about investing in dollars or in dollar based accounts. Was that too long?

MS. DYNAN: That's just perfect.

MR. HUTCHINS: Good, thanks.

MS. DYNAN: Okay. So that was looking ahead on the – in terms of the economy. Now we're going to look ahead in terms of the financial system. So as was emphasized by the President yesterday and by the Chairman again this morning, analysts think we need significant changes to our financial regulatory system in order to avoid this sort of crisis in the future. Martin Baily is going to offer some thoughts on this topic.

MR. BAILY: This is bad planning on my part. That is, in deed, I just realized, that's what we – I said I was going to talk about, but given what Ben talked about and what Vincent raised, I want to say a little bit about what happened in the past year, so I apologize.

MS. DYNAN: We'll come back to it in Q and A, Martin. I'm not going to let you off the – if you have some interesting perspective.

MR. BAILY: We're going to come back to the issue of what to do. Many of the policy and debates that we have in this country sort of hinge around is this a failure of the private sector, of the market, is this a failure of government, and that obviously effects how we think about what happened and how we think about what solutions we should take for this.

We actually put a paper out that I wrote with Bob Litan and Matt Johnson on the origins of this crisis, and I think it could be summarized as a plague on both the houses. In other words, these were very substantial market failures, people who should have known better, people who have their own money at stake made very foolish decisions, took excessive risks, and lost a lot of money. The regulators, there were lots of them, there were rooms full of regulators in many of the banks, but didn't do their job and contributed to the failure of this crisis. Ben Bernanke and Tim Geithner, it seems to me, were put into the middle of this. I liken Ben's position to having been made captain of the Titanic just after it hit the iceberg. And now, there were some things that maybe he could have done to avoid the iceberg in the first place, but he hadn't been there very long, and he really was faced with this massive crisis. And I think he should be widely applauded for what he did and for what Tim did. It sticks in my throat to applaud Paulson, but maybe he did some good things, as well, or at least did not mess up what was happening. And I know Ted was at Treasury and can speak in defense of that.

I think the policy-makers prevented what would have been a much deeper crisis, and without their interventions, we would have had a much deeper crisis. I think it's necessary when markets start to go into panic mode, for government policies to step in and try to prevent that panic mode from spreading, to try to stabilize the system, to extend credit, to guarantee credit, and really stop the rush for the door, so that's what Ben talked about, and I think he's right.

I think it's also remarkable that folks like Ben that came from academia, he had spent a little time in the policy community, but basically was an academic, has been able to handle what must have been an incredibly stressful situation, because not only is this a matter of making the right decisions, it's a matter of interacting with other people to make sure that the right decisions get carried out, and that Congress does what it needs to do.

I think the consequences of severe crisis have been laid out very well by Carmen Reinhart and Ken Rogoff, who appointed to the severe consequences of financial crisis. And it would have been a terrible mistake had policy-makers let this play out in this way.

That doesn't mean that I think they did everything right. It's possible perhaps that Bill Stearns could have been allowed to go down. Given that Bear Stearns was saved, I think it was a mistake to let Lehman Brothers go down. Ben says at this point, and Tim says, well, we couldn't do anything about it, and yet a few weeks later they were able to come up with a lot of money to help AIG, so I think that was just a mistake. It wouldn't have been easy to save Lehman, but I think it probably could and should have been done.

One of the things that I was surprised by when I was on an interview, Cheryl and Ken Rogoff was on it, and now Ken you remember was an advisor to Senator McCain, and he was advocating nationalizing the banks at that time. Now, Ken was Chief Economist of the IMF for some years and had a lot of experience in dealing with financial crisis and the kind of background that the IMF has on financial crisis, and he felt there was no alternative in the U.S. to nationalizing the banks, which was an even deeper intervention. It didn't surprise me that Joe Stiglitz wanted to nationalize the bank; it did surprise me that Ken Rogoff wanted to nationalize the bank.

So, again, I would applaud what the policy-makers did as going not too far. We did not end up nationalizing the banks, and we were able gradually to restore confidence.

Now, one of the issues that's raised by folks that see this as being a policy failure as opposed to a market failure is that it leaves behind a huge amount of moral hazard, in other words, a lot of this is caused by moral hazard. If you have these institutions that are saved, then everybody realizes that they're going to be saved again, and so they go ahead and take excessive risks the next time. I agree that moral hazard is a problem, and I agree that we have created additional moral hazard. I do think moral hazard in this crisis has been overrated. The fact of the matter is that shareholders have lost huge amounts of money, executives of these companies have lost their jobs, there's been a lot of private money that has been lost. I don't think anybody who was thinking of what they were doing at Citi or at Bank of America or any of these places were saying, well, you know, I think if this goes wrong, the government will come and bail us out, I just don't think that was the mindset.

I don't think they realize the excessive risks that they were taking or they believed that they could get through without going under. I certainly don't think that the bailout, so to speak, is what precipitated a lot of the excessive risks.

There may be circumstances in our economy where bailouts do trigger excessive risks, but I don't think these big banks failed because the government was standing behind them.

Now, one of the places, and here's where I agree with Vince that moral hazard was created is that the creditors have been protected, and not all of them in all cases. When they saved or took over Fannie and Freddie, they made sure that China got paid off, because – and European central banks got paid off, because for political reasons, which I think

-- for good reasons. But, actually, a lot of the smaller banks were holding assets or liabilities of Fannie and Freddie, and they lost a lot of money when those went down. It actually weakened the banking system.

So I agree with Vince that protecting the creditors was a moral hazard problem, and, as we think about a resolution mechanism, so that we don't do this again, we should find a way that the creditors do take a haircut when an institution goes down.

I don't blame, exactly, Ben or Tim Geithner or Paulson for doing what they did because there was so much fear that they felt if they took a haircut to the creditors, then it was going to be impossible for the existing institutions to keep borrowing. So there was a good reason why they did this and incurred this moral hazard, but it's something we need to change going forward so that people are prepared to take that haircut.

This resolution mechanism, I think, is very important. It could be done through a special bankruptcy process. It's going to require a lot of international cooperation because these large institutions are international and you can't just close down the U.S. operations.

Now my final word because I get cut off is that there was an interesting article by Paul Krugman that some of you may have seen in *The New York Times*, talking about the failure of macroeconomics or of economics generally and attributing a lot of this crisis to crazy macroeconomics.

Well, I think he was right in saying that macroeconomics went haywire. I think a lot of people in graduate schools were discussing real business cycles and somewhat over-the-top views of rational expectations models, which didn't help you understand this kind of situation.

I think he was wrong in thinking that those models were driving a lot of the policy debate here in Washington. I don't ever remember any of the debates I was in anybody suggesting the real business cycle model was what was affecting the economy. I think there was a much more pragmatic consensus in the policy debate here in Washington.

I do think he's right, though, in one respect, and that is that the academic community of economics provided a rationale for a laissez-faire which was too laissez faire. In other words, we ended up like the FSA in London with too light touch regulation. Financial markets do have inherent instability and need to be regulated appropriately, and I think it's a task of economics to start thinking about models that capture more effectively the kinds of crisis dynamics that we've seen in this event.

Thank you.

MS. DYNAN: Thanks, Martin.

We're going to turn now to Ted who is going to discuss housing and mortgage issues.

MR. GAYER: Okay. Thanks, Karen.

Well, it's an anniversary, so an anniversary is an opportunity to reflect on the past and to look ahead. As an economist, I'm going to heed the Chairman's cautious tone. Economists should be very cautious about the looking ahead part as we've had a spotty track record, to the say the least, of making predictions.

I will confess to one terrible prediction I made in the early summer of 2008. As I preparing to leave Treasury, I was speaking to the Assistant Secretary, Phil Swagel, at the time, and I told him the quote. My paraphrase is: "You know, I don't think much else will happen between now and the end of the administration."

So I think that's my admission to getting a lot wrong on the prediction side. In fact, you can probably get a number of books right now just on those seven inconsequential months. It's on the best seller list.

But, in the spirit of ex-post rationalizing, in some ways I wasn't entirely, my prediction wasn't entirely ridiculous. By early 2008, we did have a good understanding at Treasury of many of the problems and policy trade-offs that would later turn out to be the focus of public debates.

For now, I'm going to talk, focus on the housing issues, what we knew, what we didn't know and where we are now. So, to start with, I'm going to talk a little bit on the issue of foreclosure prevention.

We knew at the time that foreclosures would remain high. We were predicting about 2,000,000 foreclosures in 2009. So this is late 2007 we were predicting this. What we didn't know and what we still don't know is how the government can best attempt to reduce foreclosures while also allowing the necessary housing market correction.

In 2008, the price to rent ratio as well as the future markets were all pointing to substantial continuing decline in housing prices. There was a large overhang of inventory, home inventory, that would need to be worked through.

The good news is that this adjustment does seem to be finally coming to an end. The inventory of new homes in July, this past July, was albeit still high at 7.5 months, but it was down considerably from the 12.4 months of supply in January. The Case-Shiller Price Index finally showed an increase in prices this past June. The housing market has now experienced more than a 30 percent decline from its peak, resulting in a price-to-rent ratio that is back at historical norms.

We knew at the time that underwater borrowers, the result of price declines coupled with poor underwriting of loans, were the main drivers of the high foreclosure rate. This meant that any modification program directed at making loans affordable would have only modest effects on foreclosures. At the end of 2007 and 2008, we had the HOPE NOW Program and what was called the Fast Track Program, which were both private sector initiatives albeit with Treasury playing a very strong convening role. Both these initiatives were meant to expedite the modification and refinancing process but, by design, were not meant to address the problem with foreclosures due to borrowers being underwater.

We knew also that the only way to have an even more substantial increase in loan modifications and refinancing was for the government to put some skin in the game. The two plans we had considered at the time were, one, a temporary government subsidy with lender matching to reduce mortgage interest rates for high-risk borrowers or, two, an aggressive FHA refinancing program coupled with risk-adjusted guarantee fees paid in part by the government and by the lenders.

The Obama Administration has adopted a version of the temporary rate subsidy program under its Making Home Affordable Program. But the administration's program was not designed to take on the problem of underwater borrowers, and, as a result, while it's making a reasonable amount of modifications, it cannot stem the elevated number of foreclosures. Treasury's last report, which came out I think just recently, a few weeks ago, said they have started 360,000 filed modifications, but it's unclear how many of these will even make the 3-month trial period of making payments.

Let me talk a little bit about the GSE's, Fannie and Freddie. We, along with almost everyone else, knew that the implicit subsidy for the

GSEs was a bad idea, and we knew about the $5 trillion in GSE liabilities was something to fear. There had been news of advocating for a stronger GSE regulator, but, by the summer of 2008, the political impulse was to expand the GSEs' portfolio caps and to lift the conforming loan limits.

What we didn't know, and what I think we still don't really know, is how, when and to what degree to separate the public from the private roles of the GSEs. Fannie and Freddie face legitimate criticism about being too highly leveraged, about the size and composition of their portfolios and about their weakened underwriting standards. But, at the same time, with the collapse of private securitization in 2007, the government's implicit subsidy of the GSEs meant they were the only game in town supporting the housing market.

While the government involvement in mortgage finance must be substantially changed, we should not immediately do so while we are working on our way out of a housing slump. But, as the housing market recovers and given that the GSEs are in a prolonged time-out period, now that they are under government conservatorship, we should start planning their futures, and we should think carefully about what, if any, role the government should play in providing liquidity to the mortgage market.

In the spirit of saving time, I'm going to jump to my conclusion.

With the GSEs, along with FHA and indeed with many of the Fed programs that the Chairman mentioned, I worry that the government backing of credit risk is being seen as a free lunch. As I said earlier, now is not the time to eliminate the government's supporting role in the housing market. But government support, either by insuring at a discount against mortgage default through FHA or by insuring at a discount GSE debt, comes at a price to taxpayers and, at under normal conditions, distorts the market toward greater home borrowing and could create the conditions for the next crisis.

Ultimately, we need to move away from providing incentives to borrow to buy a home. Aside from the GSEs and FHA, this also means ending the first-time homebuyer tax credit and changing the mortgage interest deduction and the favorable capital gains treatment for housing. None of these changes, to say the least, will be very popular. They've all had political or bipartisan support, even at times a full employment. So change will be difficult and will require effective and strong leadership.

MS. DYNAN: Thank you, Ted.

Turning now to Eswar, as the Chairman emphasized in his speech this morning, there were many global aspects to the crisis. It wasn't just a crisis in the U.S., and Eswar is going to spend a few minutes on the global aspects.

MR. PRASAD: Before Lehman, before Fannie and Freddie, there was China. Once upon a time, there was a fable in this land that it was really the fault of the others, that excess savings in East Asia combined with surplus in many oil-producing economies was leading to a lot of reserve accumulation which was flowing from the U.S. and other industrial economies, thereby financing a consumption binge here and allowing financial shenanigans to take place. Fortunately, the fable has passed.

I think the blame lies to some extent on both parties. Whatever the view about macroeconomic imbalances, I think the reality is that they allowed the problems that already existed in the financial system here, both in the regulatory system and the regulatory failures in applying that system, to become not just a bubble but to turn into a conflagration that brought down the house. And, that’s probably a record for mixed metaphors.

What happened in terms of reality is that the normal equilibrating mechanisms that have kicked in, in the U.S., with the rise in interest rates did not kick in because of a lot of money flowing in from the rest of the world. So there is some legitimacy to this view that the crisis may not have been the crisis that it turned out to be if we didn’t have macroeconomic imbalances.

Now we’re dealing with the very difficult issues of how to set the financial system right, how to set the regulatory system in right in order to prevent this from happening again.

What about macroeconomic imbalances? Where do we stand? On the U.S. side, at some level, things are improving. The U.S. private savings rate, as we have heard, has begun to rise as a share of disposable income. But, of course, the government in the short run is more than making up for it.

So what happens in the U.S. is a little difficult to predict. If the U.S. private savings rate remains high and if it can start bringing down the deficit, the public sector deficit, then the U.S. share of the imbalance could start to decline, but the rest of the world is in a bit of a pickle.

Take China for instance. In China, the recovery has been fabulous. The economy seemed to be hitting a wall at the end of last year, and they rebounded extremely strongly. Now as we dig beneath the data, however, things don't look quite as good. A lot of this growth surge is largely being driven by bank-financed investment, and this is an economy that already had a fair amount of excess capacity, and this is also an economy where employment growth comes largely from the exporting sector. So China still very much needs exports in order to continue to maintain its growth model and especially employment growth, in the absence of which social stability becomes a problem.

When one starts looking around the world, even major economies like Japan and Germany, are still very dependent on exports. And, when one looks to the other side about where they might export to, and it still looks like the coattails of the U.S. are the coattails that the rest of the world is hoping to hang onto.

Now I mentioned reserve accumulation -- accumulation of foreign exchange reserves that may have been one of the other reasons why emerging markets were willing as a group to finance the U.S. consumption because, after all, foreign exchange reserves could prevent them from experiencing crises or from experiencing the effects of the crisis if a crisis did take place.

How have the incentives changed? If anything, the incentives have increased for emerging markets to build even larger stocks of reserves. First of all, they assume that this crisis has been so virulent that what we thought of as very large stocks of reserves don't seem that large anymore. Countries like Russia and India lost about a fifth of their reserves in a matter of less than half a year, and the implication that might be drawn is they need more reserves.

The IMF, of course, could come to the rescue of countries, and it has a much bigger resource base now. But the IMF continues to have a lot of stigma in these emerging markets, and, given that they don't have much of a voice at the IMF, they are still very reluctant to go to the IMF. In addition, we have seen that even if countries do accept IMF conditions, private capital did not follow IMF loans in the countries that did go to the IMF during this crisis.

So all the incentives are now set up for emerging markets to increase their level of self-insurance. Essentially, we have a system where because of the crisis many of the patterns that led to the development of global imbalances may in fact become entrenched.

So what are the possibilities now? One possibility in fact, which seems benign in the short run is in fact to go back to global and macroeconomic imbalances where the U.S. consumer goes back to behaving the way he was behaving before and driving the rest of the world along. It may not be a very likely scenario, but this is what the rest of the world actually may not be too anxious about in the short run. The problem, of course, is this could lead to an even larger adjustment in the long run.

The second possibility, of course, is that other countries start taking on a much more painful adjustment in the short run.

And, in fact, the bigger concern in both of these scenarios is that it could be accompanied by concerns about the safety of investments in the U.S., leading to a decline in the U.S. dollar which actually may not be as painful for the U.S. as for the rest of the world. In fact, if you did have a significant decline of the dollar, we would get closer to the end game that many of us macroeconomists have been thinking about, which is that the U.S. would have to reduce its trade deficit and eventually, in fact, think about exporting to the rest of the world rather than just having a large amount of net imports from the rest of the world. This, of course, means very substantial adjustment in the rest of the world.

So, that, to me, is a more benign scenario.

A more likely scenario is that we have spats in the short run because this tension building up in the global system. We've already seen it take a particular form with the U.S.-China trade dispute that has broken out over the last weekend and expect to see more of these trade tensions and other forms of tension building up.

But what is a real possibility of concern is that the crisis that many of us macroeconomists had worried about -- a large buildup in global imbalances leading to a substantial fall in the value of the dollar and thereby precipitating a very painful adjustment in the rest of the world -- is still a very real possibility.

MS. DYNAN: Thank you, Eswar.

I guess I want to start by giving Vincent a chance to react to Martin, if he'd like. Also, after Vincent goes, if any of the other panelists want to speak in favor of the Reinhart versus the Baily view, that would be great too.

MR. REINHART: I did try very hard not to say the word moral hazard because I agree with Martin that it's overstated. He mentioned the Titanic, and so that called to mind a presentation by Mike Mussa on the anniversary of what he called the Tragedy of the Titanic, and he was then the Director of Research at the IMF.

Mike explained that to economists the Tragedy of the Titanic was that it was followed by an international consortium that lessened individual discipline and had less resources devoted to looking for icebergs because the government had stepped in. And, if you believe that, then you truly believe in moral hazard.

To me, I think that the real policy failure is inherent in our political system and that is the Congress, the entity in power to commit taxpayer resources, is very difficult to turn quickly, and that is a bipartisan statement.

In 2007, certainly by 2008, there was an identifiable economic loss that markets and financial institutions seemed unlikely to absorb easily. In the absence of timely action by the appropriate officials, unelected officials jerry-rigged a policy response using the tools at their disposal. That's what they had to do, but it does have real consequences, and it is a suboptimal policy path.

But, it was the same sort of policy actions done, say, in the Mexican crisis in 1994 and 1995 when the exchange stabilization fund was used in a way no one would have ever thought, and it was repeated in using the discount window in a way no one else would have previously thought in support of markets or individual financial institutions.

That said, where I really do remain troubled is by the mechanics of Bear Stearns. That was the upstream decision that diverted events to a channel we really had no experience with. Even now, we don't really understand what happened and why it happened.

Lastly, let me just echo a point that Glenn had. Critical to historical economic recovery is a rotation from wealth-driven consumption to savings-driven investment. But we've got to basically say St. Augustine's prayer, which is Lord make me chaste but not too quickly. If the savings rate gets to the long-run sustainable level in a hurry, that represents a significant drag on the U.S. economy and those investment-driven forces won't be in place yet. And so, that's why a durable economic recovery is still a question.

MS. DYNAN: So, just before, just going back to your first point, are you skeptical that any redesign of the regulatory system will help us avoid this sort of crisis in the future?

MR. REINHART: I think fundamentally our problem is financial institutions are too complex and with complicated systems because, remember, a lot of what rocket scientists did was to take advantage of arbitrage opportunities. The tax system presented an opportunity. Basel II presented an opportunity. And so, we got into the business of issuing individual securities to solve the problems of a few firms.

These bespoke issues didn't have any market, and they required fracturing the balance sheet of the investment bank. So we created such complicated structures.

It has three consequences: One is regulators can't understand a firm that opaque. Markets can't enforce an effective discipline. Management finds it very difficult to run the firm itself. In that circumstance, you wind up with suitability abuses of the sort that helped fuel the crisis.

So we really should be looking for opportunities to make systems simpler including by consolidating regulators, not elevating the role of rating agencies, consolidating balance sheets and forcing higher capital and more stringent leverage standards.

MS. DYNAN: Glenn, I think you had something you wanted to say.

MR. HUTCHINS: I think they're both right because I think that from Vincent's perspective there were imbalances that built up, by the way, in every sector of society, from households to government, with financial services and businesses lending in between, over a course of a very long time period that was expressed in many ways, but one of which was the incredible amount of debt outstanding in our economy at every sector. And, our failure at a policy level, at a political level, at a cultural level, at a social level to prevent that led us to where we were.

Lehman, the failure of Lehman didn’t cause that failure. The failure of Lehman, if it hadn’t failed, something else might have, would almost certainly have happened to have that come.

The one thing I will say, that in the context of the Bear Stearns rescue -- which I think you made a very interesting point which I want to think about a little bit -- is we didn’t have a panic eventuate, following that. That might have been the wrong way to do it, but it also stopped what happened with Lehman.

The big problem with Lehman, if you’re in a public policy perspective, is you wanted to create -- when you’re coming out of period of imbalances that built up for that long a period of time, you want to create some glide path to a softer landing in order to prevent the kind of panic that occurred and the economic consequences associated with that.

In that sense, I think Martin is right. You really had almost no choice, following the consequences of the Lehman failure, to act aggressively at that point.

And, I think the concept of moral hazard had to be thrown out the window because the whole apartment building was burning down. The guy smoking in his bed had long since been incinerated, right, and we had to save the system. So I think they are both right.

MR. REINHART: There's a dealmaker.

MR. HUTCHINS: The issue right now is how we create not just the regulatory circumstances but the cultural, social and political circumstances under which we could take these imbalances out of our system, and that's a very, very big challenge.

MS. DYNAN: Ted?

MR. GAYER: Can I just follow up a little bit?

First, I have a theory that Walter Bagehot has gone unrecognized because people aren't sure how to pronounce his name. So it's nice to see the Chairman and others at the Fed referring to Bagehot's dictums so frequently.

I do think there's an issue that Vincent is getting at here, and I asked the Chairman a little bit about this, which is Bagehot dictum is to lend freely at a high rate to solvent firms. I don't think anyone is arguing against that.

The question, and this Vincent talked about -- we don't know exactly what's on the books for Bear Stearns -- is did we do that with Bear

Stearns? And, can we even assess quickly whether or not a firm like Bear Stearns, if things are happening in real time, is it that they're suffering from illiquidity in a panic or is it that their underlying assets just really are toxic? If the latter, how do you respond?

So I think much of what the Fed has done through their lending facilities has been based on Bagehot's dictum in providing liquidity, which I think is rather sound. The question is what to do in a panic when you have a firm like Bear Stearns in that, as the Chairman said, it's fuzzy whether they're solvent or they're liquid?

But I think a fair reading of it is that they were insolvent. I don't know, and we'll see how our portfolio, how Maiden Lane does. But it's still a little bit inconclusive how to react to that, I think.

The Chairman and other Fed members recently have been, I think, talking more about the Bagehot dictum, and I think that's right, but it doesn't -- I think it doesn't explain the whole story and explain all the action.

MS. DYNAN: Okay. Do any of the other panelists want to jump in with reactions to each other?

Let me, I have one more issue for Ted. On the issue of the GSEs, the redesign of the housing finance system, you seem to be cautioning us about the dangers of having government entities that provide a broad subsidy of home ownership. I hope you think that is fair.

MR. GAYER: Yes.

MS. DYNAN: But that's only one of the roles played by the GSEs. They also have played a role providing meaningful support to low-income households, and, very recently, they have played the role of keeping mortgage credit flowing in times of crisis. Do you have ideas about how we would replace these traditional functions of the GSEs if we were to eliminate them?

MR. GAYER: I think I did caution that was in my paragraph of what we don't know, but you're right. I mean the GSEs play multiple roles. There's a public role of providing affordable housing, mortgage finance, creating liquidity for mortgage finance. Then that breaks down into the question of them securitizing and guaranteeing versus holding on portfolio, which I think is an important distinction.

But I think what we all agree is those public roles did not work when combined with the profit-seeking role of a private entity or a quasi-private entity with the implicit subsidy kind of on the back end. So I think I would hope, and by now it's a little bit the barn door is closed somewhat, but that there's agreement that that mix of public and private don't mix, and they don't mix well, and they were a flawed design from the get-go.

On which public roles to maintain, it's a long explanation, so I'll keep it brief. On the affordable housing, we do have something called the FHA and Ginnie Mae, and I think we can talk about reform on those, but I think that's kind of where you house, for lack of a better word, the affordable housing goal.

And, on the mortgage liquidity, it's a tough question. I mean what would mortgage rates look like without the GSEs? Certainly now, there would be no securitization, and rates would be higher. But that's not to say that there wouldn't have been a private market in the first place had there not be GSEs, and it's also not to say that if you had a private market strictly for market finance and then you had a crisis, the Fed has shown very creative ways to provide liquidity -- so, irrespective of whether or not it's a public entity or not.

So they're all options even in a private world. But, like I said, it's, in my mind, not a resolved issue.

MS. DYNAN: Thanks, Ted.

Martin?

MR. BAILY: My original mandate was to say a little bit about policy going forward, and I'm not going to make another long speech for that, if I could just make a couple points in that regard.

Brookings, along with AEI, is part of the Pew Task Force on Looking at Financial Reform, and Brookings has also been supported in this by other foundations who keep their names out of the discussion but have been very helpful for us. So I just want to comment on a couple of things that many other people on the task force are supporting in terms of what we should do, going forward.

We think that there's a lot more appetite on the Hill and in the Senate for more regulatory consolidation than the Treasury put forward.

By the way, I gave a talk at Macroeconomic Advisors recently, and I started off by saying I thought the Treasury proposal was pretty good and then went on to talk about things that I thought should be done differently. Larry Myer said to me, wait a minute, you said the proposal was good, and then you're proposing something completely different.

I don't think this is something completely different. I think Treasury sort of go political cold feet, thinking that they could not get enough consolidation, and so they sort of went for consolidation of OTS and OCC. Well, OTS is obviously, as Senator Schumer described it, toast. I mean they failed dismally, and they were regulating AIG and all these CDSs. So they're obviously, I think, going to go under and become part of OCC.

But we think it would be much better, or many of us think it would be much better, to have a single strong financial prudential regulatory, and that would mean including taking over the activities in that area that are done by the Federal Reserve and by the SEC as well as the OCC and the

OTS.

We think that regulators failed miserably. There's no guarantee they're going to succeed in the future. But, by having a really well-consolidated entity with a strong leader, a Senate-confirmed leader, that was able to pay well and hire good people, you would do something that we absolutely need to do which is to improve the quality of regulation. I think we can also improve the set of information they have available, which is now done in a very primitive way, by faster, real-time reporting. That, I think, would help us avoid this kind of crisis.

I'm going to say quickly as a corollary to that, taking away the prudential regulation of the Federal Reserve, one of the issues there is, well, can the Fed sort of continue to do its job on monetary policy? We think it can. We think it should have access to the same information that the prudential regulator has, even if it's not in fact doing the prudential regulation. And, we think the Fed actually should be given the responsibility of being the systemic regulator.

Now the Treasury proposal is actually a little fuzzy about who is going to be the systemic regulator. There is this council, but then maybe it's really the Fed that's going to do it.

We think the Fed should do it. The Fed is the agency that has high quality economists, and that's where you send your Ben Bernanke or your

Alan Greenspan or your Paul Volcker. Those are guys that are managing the business cycle. They have a first-rate staff of which we now recruited one of them, that are expert on business cycle issues. So that's the natural place to put the systemic regulator. That's not a good place to have prudential regulation which should be done somewhere else.

Let me stop there.

MS. DYNAN: Thank you, Martin.

We have some time for a few questions from the audience. So, right there in the second row.

QUESTIONER: I'm Bill Coleman, and I'm a partner at Melvin and Morris.

First, I was surprised that you didn't point out, or that the Chairman didn't point out, probably one of the causes of our problem, namely we had two presidents -- one, Clinton, and then Bush -- both of whom insisted and urged people to sell housing at less than what it normally was, and that's one of the reasons why you had the problem you had.

I was also disturbed that you didn't recognize that when the crisis started that Secretary Paulson began, got the first money, and certainly the Chairman of the Federal Reserve worked with him and helped to make the difference.

I also think that you ought to recognize other reasons why we had the problem. One was that a Japanese automobile company decided to make cars in the United States. It went to the Governor of Tennessee. He gave it property for almost zero. He permitted it to build a building, of course. They hired employees there at 35 percent less than if you worked in a Detroit plant. You got hired. That certainly made a difference.

Secondly, I think we ought to begin to look, even though we look at the companies that failed, to what are the companies that were able to work their way out of it. Certainly, Goldman Sachs had the good judgment to declare itself or say it was like a bank, and it got the money, and it's certainly very successful. I think that one should admire Ford Motor Company for when it had the opportunity to get the money the way General Motors did it said no.

And, I really think that we ought to take a look at the whole thing and decide.

Finally, and I know I'll be laughed, I think all of us should reread that book on the general theory of employment interest in money, which when I went to school I read, and now there's a recent biography, though it's 850 pages. You can read both of them. Perhaps, we ought to get back.

And, there is a Judge Posner in the Fifth or Sixth Circuit who says he's ready. He has been converted to Keynesianism as I have.

MS. DYNAN: Thank you very much.

QUESTIONER: Temporarily, anyway.

MS. DYNAN: Yes, moving to the back of the room, the gentleman with the green shirt.

QUESTIONER: I knew there was a reason for wearing this green shirt today. I'm Jim Berm with the Community Development Publications.

Something that hasn't been mentioned, and maybe it wasn't appropriate for this conversation, but what do you people feel about creation of the Consumer Protection Financial Agency?

MS. DYNAN: Martin, I was going to ask that myself. Do you have a view on that?

MR. BAILY: I think clearly something needed to be done. We had one of the failures that happened was the mortgage brokers and the originating banks did not pay enough attention and did not have an incentive to make sure that the people who were borrowing had a reasonable chance of repaying that.

Now some of the failures came on the part of the borrowers. People didn't always fill in their forms correctly, but I think clearly there was a consumer protection problem there that was done.

I've also heard that some of the practices by the credit card companies really amount to pretty shark business practices: moving the dates of when your payment is due, for example, so that you get the letter giving your bill on Saturday morning and, unless you rush straight to the post office and pay it, then you get penalized. So this kind of shark practice was happening all around.

So I think there was a failure to protect consumers, and there was also in some cases a failure to protect against consumers that shouldn't have been borrowing in the first place.

The key question to me is are you going to make this a separate agency or are you going to have it become part of another agency? The system of regulation that I think has probably done best is that in Australia where they use the twin peaks system: the twin peaks meaning that they have a single prudential regulator, which I already said I support, and then they have a conduct of business regulator.

We have a conduct of business regulator at the SEC, and I'd have to say they failed pretty miserably. So it's a little strange to recommend that they get another function, but I think we do have another administration in the SEC. We also have consumer protection in the Federal Reserve, which failed but is now actually staffed by some very good people.

So, rather than start a new agency, I'd like to take the people that are now at the Federal Reserve in this area, who I think are doing a good job -- they didn't, but they are now -- and move them into the SEC and have the SEC be the conduct of business regulator to go along with the prudential regulator.

But I suspect we will get a CFPA, a stand-alone CFPA. The danger of that is it becomes a magnet for folks that don't understand markets very well and don't always make regulations that make much sense. But I agree with the sentiment that something had to be done.

MS. DYNAN: Thank you, Martin.

You know you brought up earlier the Krugman article and whether it's fair to question the economics professions at this point. In my own view, I think it is fair to question the economics profession, and one of the areas is that we lack a full understanding of the limitations of households and businesses when they're using new and complex financial products. That just highlights the importance of getting a consumer protection right.

MR. BAILY: Yes, but we do have behavioral economics which is coming along to try to fill that gap. So we hope it will be better in the future.

MS. DYNAN: Ted?

MR. GAYER: Just to offer a slightly contrary view, I don't know if this speaks against such an agency, but I don't think an agency would have changed much.

Tying back to the earlier comment here, if you assume incorrectly that housing prices will always go up by at least 3 percent and likely, on average, more, it's a flawed assumption, but that's what a bubble is. If you start with that assumption, then these complex 228 mortgages actually make perfectly good sense both from a borrower point of view and from a lender point of view.

From an investor point of view, buying complex securities in which you really don't know the underlying characteristics of the borrower and their total debt-to-loan value and all the rest actually still makes pretty good sense so long as you have an appreciating underlying asset.

And, from Presidents Clinton's and Bush's point of view and every other policymaker and, dare I say, including the regulators, if they're under that perception of at least a 3 percent increase, well, then promoting home ownership for people for whom it's a real stretch and really don't have a sizable down payment is a good idea, and we should do what we can to kind of lend freely to those people.

Somebody mentioned before it's like a pox on all your houses, but that one simple assumption, which is wrong, can explain a lot of things, and the preexistence of such an agency wouldn't have really changed that.

MR. BAILY: I agree with that.

MS. DYNAN: Thank you. Thank you, Ted.

Yes, in the second to last row, in the tan suit.

QUESTIONER: Thank you. Ty Morcan with Oracle Corporation. I have a question for Glenn.

We talked about how it was sustainable to have the household debt trajectory that was taken in the nineties and early this year. So it was a matter of time before the 140 percent of household income wasn't going to be sustainable.

You mentioned the transition to an innovation-based economy. How far back in history do we have to look to where we were successful in that, where we had the right balance between a consumer and savings-based economy?

MR. HUTCHINS: I think the best analogy I can think of was in the early seventies when the economy was going through a very similar set of circumstances. Many of us on the panel were probably in college or graduate school, and we were told we were going to be the first generation in American history that was going to be downwardly mobile, economically downwardly mobile.

What replaced all the declining capacity in other parts of the economy was the IT industry which has gone through 25 years of company formation, capital formation, job creation, net worth creation, productivity increases and GDP growth. So I think we're at a very similar kind of inflection point now, personally.

For instance, I'll give you an example. The kind of mobile broadband wireless is a trend I think that's much larger than the underlying PC trend that drove the IT industry.

As an example, 25 years into the PC world economy, there are a billion PCs in use today. There are already 3.3 billion handsets. So the marketplace is three times the size.

I'll give you another fun statistic. Today, YouTube, which is just one part of Google, uses more bandwidth, more internet bandwidth than all the internet used at its peak in 2001.

So the investments in the network and all of the content services, gizmos that make all this stuff happen, is the biggest IT trend in our lifetime.

And, by the way, one other thing I'll point out is while we're all wringing our hands about what the financial service industry did and the automobiles and what not, the vast majority of our economic output has been in companies that have continued with some hiccups here as associated with reductions in consumer demand, have continued to kind of operate pretty effectively, have had pretty high sustained levels of employment, high sustained levels of R&D, high sustained levels of cap ex, and many parts of the economy are growing very rapidly. So what we're talking about here is just creating the conditions under which those businesses can continue to perform.

I think that the vast majority of our economic activity was untainted by these activities, has been slowed down a little bit but continues to operate. So I think that what we need to do right now is to turn our public policy attention that part of our economy, understand exactly how high quality jobs are being created and create the political, regulatory and cultural circumstances in which that can occur.

And, I think there's a complete dearth in my view of any discussion of that in this town. If you come from the real economy into this world, you say they're not talking about the stuff that we really care about.

MS. DYNAN: Okay. I think we have time for just one more question. There's another question in the back that I'd like to get to.

QUESTIONER: Thank you. Dan Michaeli with the Council on Foreign Relations.

One question I want to push Eswar a little bit more on this is, looking forward, the value of the dollar. I think you correctly pointed out that this going to have a significant impact, perhaps a more significant impact on the developing world, and I would point particularly to China in this regard. But I think it also will affect the U.S. in terms of our ability to finance our national debt.

I'm wondering what the different scenarios are in terms of what the U.S. will have to do in order to be able to continue to rely on other countries to buy our debt while the dollar is depreciating and while we have a lot of countries like China, Russia, et cetera, talking about maybe using SDRs as a better unit in which to measure, in which to issue debt.

MR. PRASAD: The good news is that in the short run there isn't much of an alternative, and, that, in a sense, is a reflection on what happened to the dollar --

MR. BAILY: Alternative to the dollar, you mean?

MR. PRASAD: Alternative to the dollar.

There wasn't much of a depreciation of a dollar even though the U.S. was in the paroxysm of this crisis. But, to me, this is a reflection not so much about the strength of the U.S. but the relative strength of the U.S. compared to financial systems in many other economies.

Now, of course, one has to be careful in distinguishing between different types of flows. There was some continued flow of money into government instruments, into T-bonds here, but not into private sector securities.

The question is whether this is sustainable. I think in the long run, although the end game is fairly clear to virtually everyone, there has to be a depreciation of the dollar and there has to be change-out in the U.S.

trade balance position so that we start repaying out debt. So it doesn't make sense for the rest of the world to continue to finance us.

In the short run, I think actually this is potentially sustainable equilibrium, where the rest of the world continues us until we can start going to this adjustment part. But the bigger risk is that there could be some precipitous event like the Chinese getting antsy about the trade issues and making a statement of the sort that they're no longer going to invest in U.S. treasury bonds.

Now, if you think about the dependence of the U.S. on, say, China in particular, it has declined. The U.S. deficit has gone up, but private savings has gone up as well.

And, if you think about the Chinese accumulation, say, of about $350 billion worth of reserves in 2009, which is quite likely, of which they put maybe $250 billion in the U.S., that's $250 billion out of $1.6 trillion of the deficit. This is not huge, but the problem is that bond and currency markets are so fragile right now that you could have a fairly precipitous movement.

But the one encouraging thing again is that as you think about the dollar's value, which is a relative price of course, what currency is the dollar going to strengthen against? Again, there isn't that much sign of strength in the rest of the world.

So these are not exactly words of comfort, but I think the reality is that eventually we will evolve into a more stable system. But, right now, advocating a move to an alternative actually could create a fair amount of turmoil, and that's the last think we need.

MS. DYNAN: Thank you, Eswar.

I think Glenn just has a quick follow-up.

MR. HUTCHINS: Look, I think I don't want to be the guy to tell everybody to put on their hairshirts here, but I think it's extraordinarily important for us to move to fiscal balances in this country over the medium term. We cannot sustain the kinds of spending we've had in the last several years.

Remember, we did get the budget surpluses at the end of the Clinton Administration. It is something we can accomplish.

And, I think a key factor in creating a renewed American economic leadership in the world as opposed to sustained decline is going to be able to stanch the flow, is going to create capital inside our country that supports our own lifestyles and can invest in an American future. That has to be happen. We cannot sustain this for a very meaningful period of time. It just can't be done.

MS. DYNAN: Thank you. I think, Glenn, you provided us with an excellent topic for our next event.

MR. HUTCHINS: Well, did I do what I was supposed to do? Okay, good.

MS. DYNAN: We're out of time, but I want to really thank each of the panelists for providing such thoughtful remarks and an interesting discussion. Thank you all for coming.

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