AUTHENTICATED
U.S. GOVERNMENT
INFORMATION
GPO

S. HRG. 110–884

THE ECONOMIC OUTLOOK AND OPTIONS FOR STIMULUS

HEARING

BEFORE THE

COMMITTEE ON THE BUDGET UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

November 19, 2008—THE ECONOMIC OUTLOOK AND OPTIONS FOR STIMULUS

The Economic Outlook and Options for Stimulus

THE ECONOMIC OUTLOOK AND OPTIONS FOR STIMULUS

S. HRG. 110–884

THE ECONOMIC OUTLOOK AND OPTIONS FOR STIMULUS

HEARING

BEFORE THE

COMMITTEE ON THE BUDGET UNITED STATES SENATE

ONE HUNDRED TENTH CONGRESS

SECOND SESSION

November 19, 2008—THE ECONOMIC OUTLOOK AND OPTIONS FOR STIMULUS

Printed for the use of the Committee on the Budget

U.S. GOVERNMENT PRINTING OFFICE

47–518pdf WASHINGTON : 2008

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512–1800; DC area (202) 512–1800
Fax: (202) 512–2104 Mail: Stop IDCC, Washington, DC 20402–0001

COMMITTEE ON THE BUDGET

KENT CONRAD, NORTH DAKOTA, *CHAIRMAN*

PATTY MURRAY, WASHINGTON	JUDD GREGG, NEW HAMPSHIRE
RON WYDEN, OREGON	PETE V. DOMENICI, NEW MEXICO
RUSSELL D. FEINGOLD, WISCONSIN	CHARLES E. GRASSLEY, IOWA
ROBERT C. BYRD, WEST VIRGINIA	WAYNE ALLARD, COLORADO
BILL NELSON, FLORIDA	MICHAEL ENZI, WYOMING
DEBBIE STABENOW, MICHIGAN	JEFF SESSIONS, ALABAMA
ROBERT MENENDEZ, NEW JERSEY	JIM BUNNING, KENTUCKY
FRANK R. LAUTENBERG, NEW JERSEY	MIKE CRAPO, IDAHO
BENJAMIN L. CARDIN, MARYLAND	JOHN ENSIGN, NEVEDA
BERNARD SANDERS, VERMONT	JOHN CORNYN, TEXAS
SHELDON WHITEHOUSE, RHODE ISLAND	LINDSEY O. GRAHAM, SOUTH CAROLINA

MARY ANN NAYLOR, *Majority Staff Director*
DENZEL MCGUIRE, *Minority Staff Director*

CONTENTS

HEARINGS

Page
November 19, 2008—The Economic Outlook and Options for Stimulus 1

STATEMENTS BY COMMITTEE MEMBERS

Chairman Conrad 1
Ranking Member Gregg 11

WITNESSES

Simon Johnson, Senior Fellow, Peterson Institute for International Economics 47, 50
John B. Taylor, Mary and Robert Raymond Professor of Economics, Standford University, and Senior Fellow, Hoover Institute 64
Mark Zandi, Chief Economist and Cofounder, Moody's Economy.com 13, 18

THE ECONOMIC OUTLOOK AND OPTIONS FOR STIMULUS

WEDNESDAY, NOVEMBER 19, 2008

U.S. SENATE,
COMMITTEE ON THE BUDGET,
Washington, DC.

The committee met, pursuant to notice, at 10:04 a.m., in room 608, Dirksen Senate Office Building, Hon. Kent Conrad, chairman of the committee, presiding.

Present: Senators Conrad, Murray, Nelson, Cardin, Sanders, Whitehouse, Gregg, and Sessions.

OPENING STATEMENT OF CHAIRMAN CONRAD

Chairman CONRAD. The hearing will come to order. I want to welcome everyone to the Budget Committee. Today's hearing will focus on the nation's economic outlook and the options for stimulus. We have birds chirping there, birds chirping in the sound system.

I hope that this hearing proves timely because this is very central to the discussion and debate about what needs to be done to stimulate the economy, both during this truncated session, but also when Congress resumes, and we are being told that we will be right back at it during the first part of January, so no one should expect that the usual rhythm of this place will be the rule.

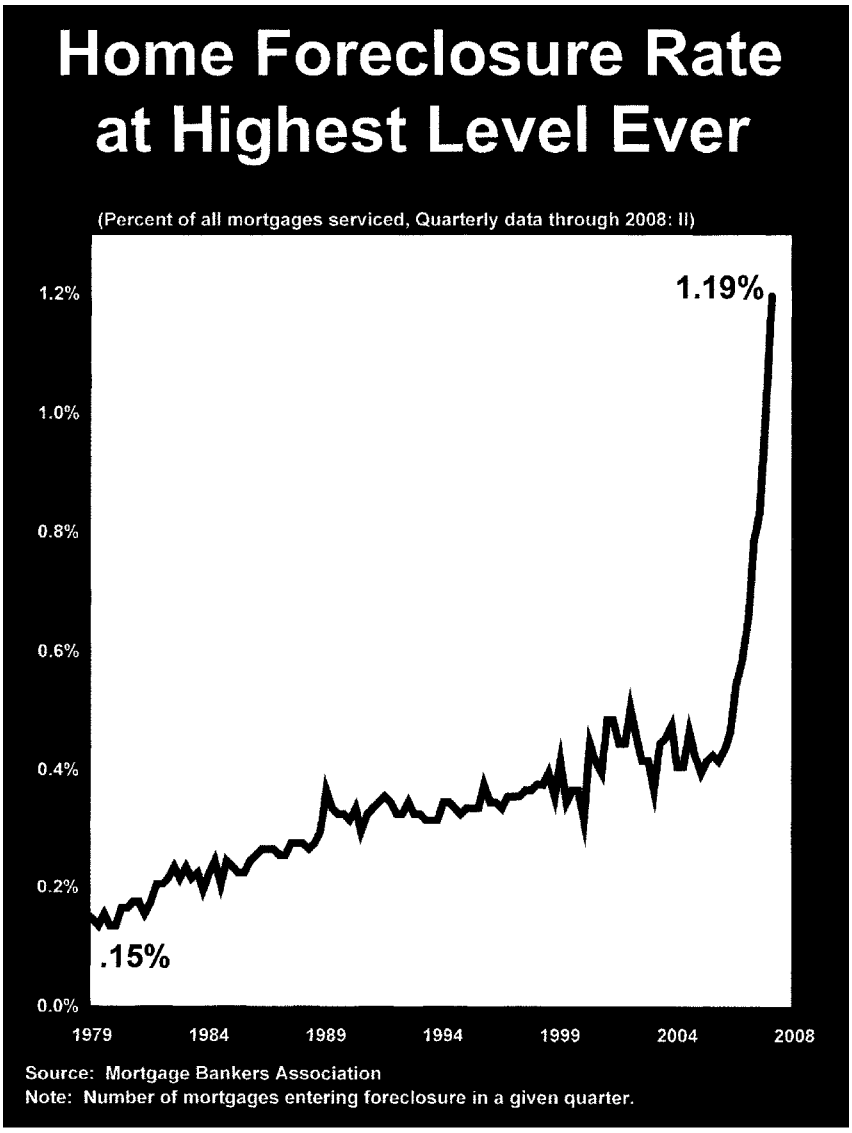
I would like to particularly welcome our witnesses this morning, Mark Zandi, who has testified before this committee before and whom we see as a very valuable resource for this committee. He is the Chief Economist and co-founder of Moody's Economy.com.

Simon Johnson, Senior Fellow at the Peterson Institute for International Economics and Professor of Entrepreneurship at MIT's Sloan School, welcome. It is good to have you here.

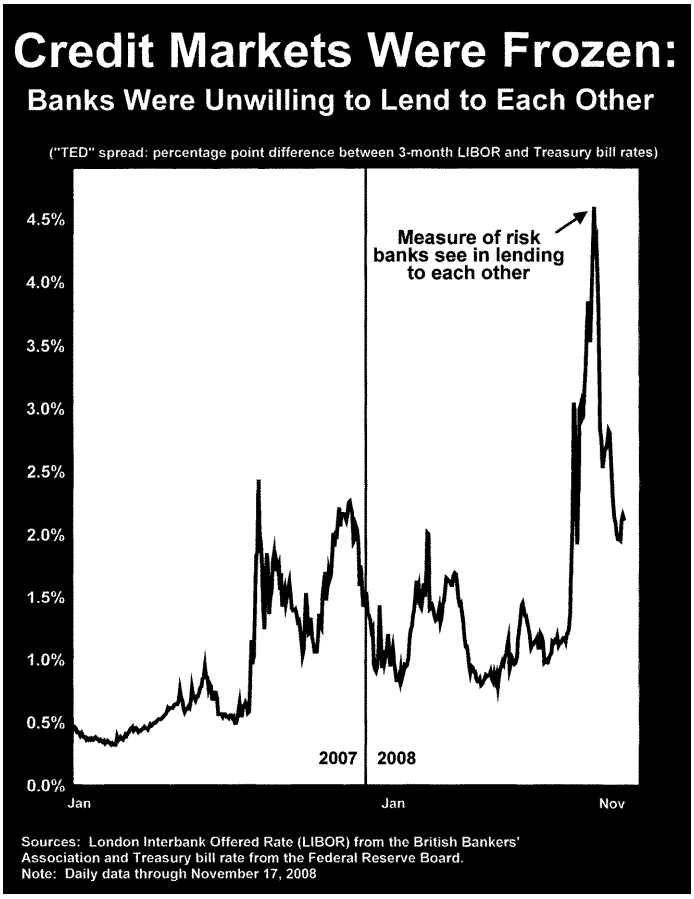
And John Taylor, Senior Fellow at the Hoover Institution and Professor of Economics at Stanford University, my alma mater. I was there with our grandson this summer and I was showing him around and we had a wonderful time.

This is a distinguished panel and I very, very much appreciate your being willing to come and share your thoughts with us.

Let me just start with a few charts to put our current circumstance in some perspective. The downturn has featured a dramatic collapse in the housing market. All of us know that. We can see what has happened to the home foreclosure rate. It remains at the highest level ever. The housing decline rippled through the rest of our economy and helped trigger the financial market crisis.


Home Foreclosure Rate at Highest Level Ever
(Percent of all mortgages serviced, Quarterly data through 2008: II)
1.19%
.15%
1.2%
1.0%
0.8%
0.6%
0.4%
0.2%
0.0%
1979
1984
1989
1994
1999
2004
2008
Source: Mortgage Bankers Association
Note: Number of mortgages entering foreclosure in a given quarter.

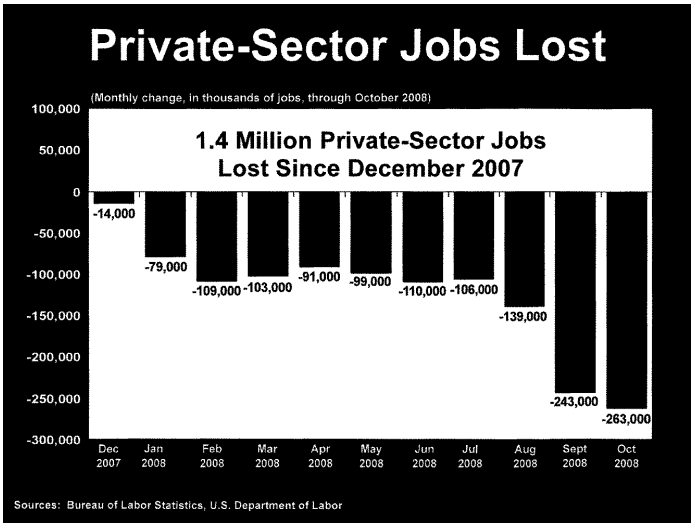
Let us go to the next slide, if we can. Credit markets were essentially frozen from late September through mid-October. This chart shows the clearest measure of what happened to our credit markets.



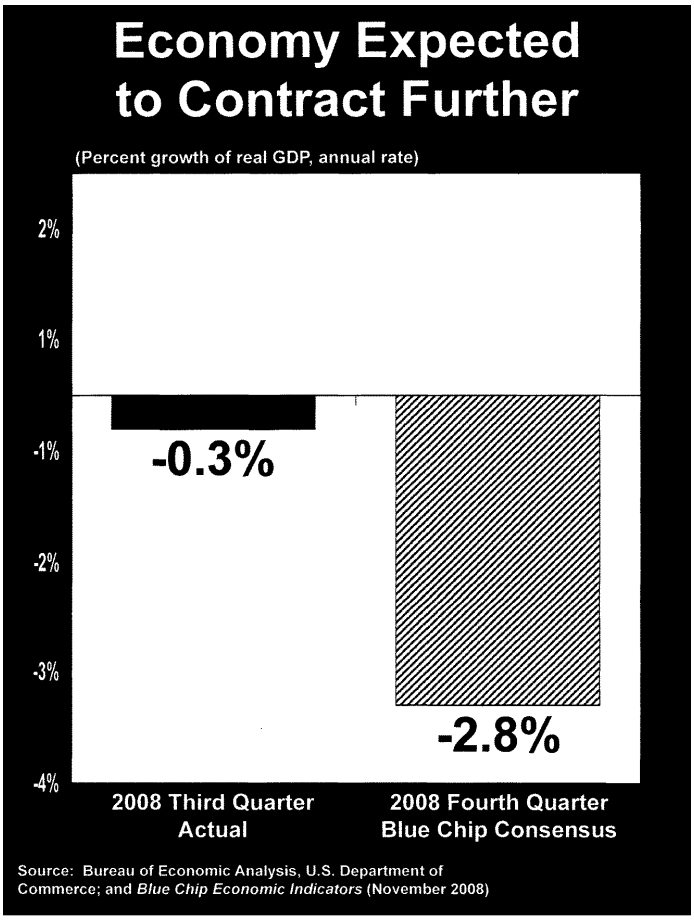
This is the so-called TED spread, the difference between the interest rate at which banks can borrow from each other based on the London Interbank Overnight Rate and the rate on U.S. Treasury bills. It shows that the typical difference between the two, which is relatively modest, has absolutely skyrocketed. In fact, it

went up ninefold before now falling back after all of these dramatic policy interventions, but still remains very high by historical standards.

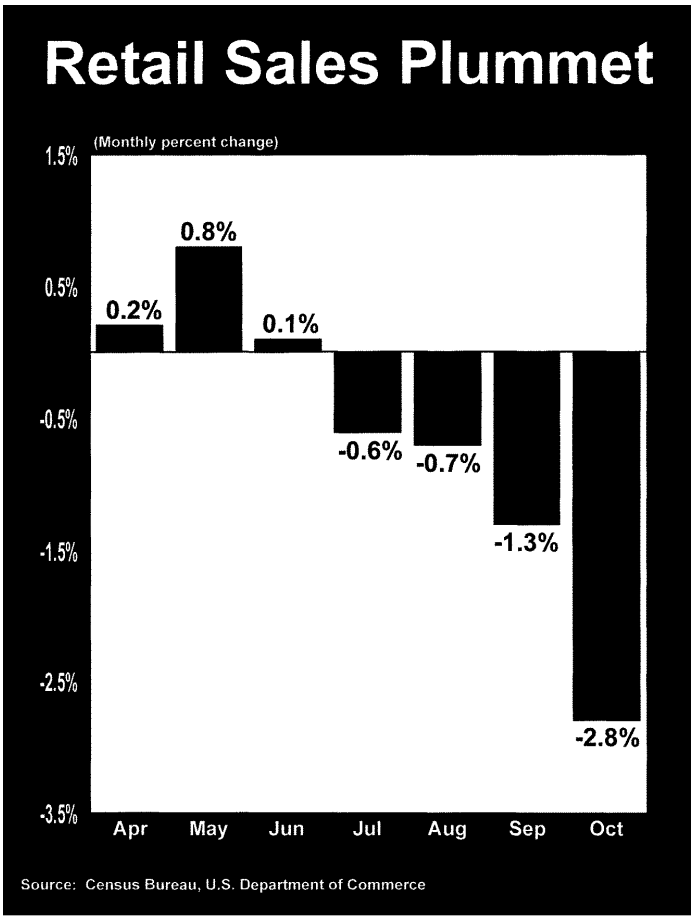
Third, we have lost 1.4 million private sector jobs since December of last year, with 263,000 jobs lost in October alone.



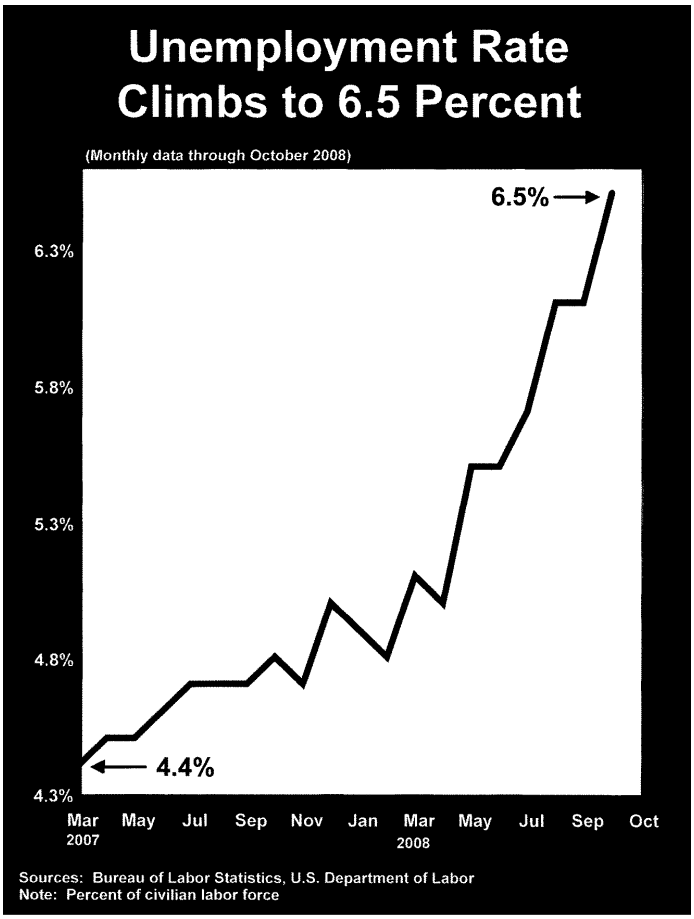
Fourth, the economy is expected to contract further. We saw the economy shrink by three-tenths of 1 percent of GDP in the third quarter of this year. The blue chip consensus is that it will shrink by 2.8 percent of GDP in the fourth quarter.



Fifth, retail sales have plummeted, falling 2.8 percent in October. What we are hearing from retailers around the country is that retail sales continue to slide. I am very pleased to report in my home State of North Dakota, retail sales are actually increasing during this period. So if anybody is looking for a job or economic opportunity, we welcome you to North Dakota.



The unemployment rate has now climbed to 6.5 percent, so clearly the economy is struggling and we have to act. That is why we are here discussing a stimulus package today.



There are several options to be considered. Many economists are urging that a package must be large enough to have an impact. We have heard estimates anywhere from, at the low end, 1 percent of GDP of a stimulus package to 3 percent of GDP. Just to put that in some perspective, we have about a $14 trillion economy, so we are talking about a stimulus package of anywhere from $140 billion to $420 billion. We have even heard some say that a stimulus package should be as much as $500 billion. We have seen what China

has done with a package of well over $500 billion on a much lower base in terms of the size of our economy than ours.

Stimulus Options

- 1-3% of GDP
- Unemployment Insurance
- Food Stamps
- Ready-to-Go Infrastructure Projects
- Aid to Homeowners

In terms of specific options, we could extend unemployment insurance. That is considered stimulative because it goes to people who need it the most and who are most likely to spend those dollars. We could also do the same with Food Stamp assistance, broaden it, extend it. Again, those are dollars that are considered highly stimulative.

Third, we could fund ready-to-go and near-term infrastructure projects. Typically, that is looked on somewhat dimly by those in the economic profession because often those packages are too slow to get into the economy to be considered timely. I think in this circumstance, we need to look again at infrastructure projects.

I have just done community forums in 50 communities in North Dakota. It was very interesting, the reaction. It was overwhelming—overwhelming—in support of infrastructure projects as a means of stimulating the economy.

And we could provide aid to homeowners. That is another option.

The argument against infrastructure being effective, because it can be often delayed, I think may be contradicted by what we see as ready-to-go projects around the country. The American Association of State Highway and Transportation Officials has said that they have more than 3,000 ready-to-go highway and bridge projects across the country. The group's Executive Director said, and I quote, "If Congress wants to support small business, create thousands of jobs here at home, and stimulate the economy, it should invest in the more than 3,000 ready-to-go highway projects that could be under contract within the next 30 to 90 days."

Transportation Group Cites 3,000 'Ready-to-Go' Highway Projects

"If Congress wants to support small business, create thousands of jobs here at home and stimulate the economy, it should invest in the more than 3,000 'ready to go' highway projects that could be under contract within the next 30-to-90 days.."

– John Horsley
Executive Director of the American Association of State Highway and Transportation Officials (AASHTO)
October 15, 2008

I asked my own Transportation Director in North Dakota, what is their circumstance. He told me they have in my small State $300 million of projects ready to go. Engineering is completed. Design is completed. Land is acquired. They are ready to let contracts if they have the money.

I am very interested in hearing the views of our witnesses, and with that, I want to turn to my very able colleague, Senator Gregg.

OPENING STATEMENT OF SENATOR GREGG

Senator GREGG. Thank you, Mr. Chairman. Thank you for calling this hearing and I appreciate the panel, which is an expert panel, to say the least, participating also.

Obviously, we are confronting an economic situation which is extraordinarily difficult and for a period, well, this is a precipice which would have been potentially unique in our experience and also catastrophic, with the potential meltdown of our financial sector. We are still working through that process of how we make sure that our financial sector remains at least strong and substantive during these very difficult times.

There has been some discussion, of course, as to what we should do with the additional TARP money, which it appears it will be $350 billion on the table for the next administration to use. I believe Secretary Paulson has made it fairly clear that at a minimum, that is what will be left available for use. I think that is a good decision by Secretary Paulson, to allow President-Elect Obama to make the decision as to how those additional funds will be moved in the area of protecting and promoting and strengthening our fiscal year structure.

I would like to hear the panel's comment as to what they think should be done with those dollars, because those are ready dollars, so to say, to quote Phil Gramm but in a different context. What is important in my opinion is that we put the dollars on the problem, and the problem is foreclosures and stability of the real estate industry and the real estate markets.

The decision by the Secretary to move the initial dollars directly into capital restructuring of the financial institutions which were at risk, I think was also the right decision, because it was fairly clear that getting those dollars out the door into the purchasing of non-performing assets was going to be very difficult. Pricing those assets was going to be extraordinarily difficult. Setting up the auction process appeared to be extremely complex.

And although the Chairman and I worked very hard through a long 48-hour period to put the bill together with the expectation that it would be developed as a bill that would be focused on troubled assets and getting those off the books of the financial institutions, the decision to go directly to capital infusion, I think, was a correct decision and has stabilized those institutions and more institutions to come.

But the question now is with the additional $350 billion, is there a structure which would allow us to use those dollars effectively to get at the underlying problem of the real estate pricing in this country and the overhead of inventory and specifically at allowing people who are in their home as homeowners, not as speculators, but are in their home as homeowners to stay in their homes through some sort of restructuring using those dollars, and does that have a stimulus effect and does that help the situation if we did that.

The second issue which is on the table right now, of course, is the issue of dealing with the automobile companies and their weakened situation, which is more than weak, it appears, and whether or not it is appropriate for the Federal Government to go beyond what is the already $25 billion that is in the pipeline or whether

that $25 billion should be reoriented in some way to be gotten out the door faster and in a more immediate way, as it appears to be at the present time delayed. I would be interested in the thoughts of the panel on that and what is the proper role relative to the question of the automobile companies and should this include not only the issue of compensation at the executive level, which it obviously should include if the Federal Government steps in, but also the issue of employee compensation and especially retiree compensation.

I read, regrettably in my opinion, that the UAW has rejected out of hand any action in that area as an element of the taxpayers stepping forward. They appear to be willing to let the taxpayers take the risk, but not their membership. It would seem to me that any restructuring is going to have to by definition, in order for these companies to survive, include some sort of restructuring in the area of compensation, not only at the executive level, but on the line, and so I would be interested in your views on that.

Obviously, the Chairman has alluded to various types of stimulus packages which are in consideration, the usual suspects of the Keynesian philosophy, which is unemployment extension and Food Stamps and initiatives in those areas, which have a checkered history of actually creating economic stimulus. In fact, we don't have to go too far back to see how checkered that history is when we look at the first stimulus package, which this Congress did this year earlier under the $60 billion, the vast majority of which was simply a direct repayment, rebate, whatever you want to call it, to Americans of $600 or more and which I would be interested in the reaction of this panel to what that stimulus package did and whether we got value for our dollars.

It would seem to me, at the time, I said we should have spent that money on the problem, which again was real estate and stabilizing the real estate markets, especially ownership by individuals who are in a home who are finding themselves stressed by the fact the value of the home has dropped and the cost of the mortgage has reset. But we decided not to take that route. We decided instead to simply throw $600 in various packets out of a helicopter across this country which was then used to purchase Chinese goods, which may have stimulated the Chinese economy but I don't think stimulated ours all that much.

So I would be interested in getting the panel's view as to what type of stimulus really does stimulate in the short term. The Chairman has made the argument for infrastructure. I don't have any argument or disagreement with the belief that infrastructure in the long term is a good capital investment for a nation. Building better roads, sewage systems, water systems, transportation systems is a good investment for our nation. But is it a short-term stimulus? That is a good question. In fact, if you look at the proposals, it looks like less than 20 percent of the dollars that are actually proposed for infrastructure stimulus would actually be spent in 2009. If that is the case, is it really a stimulus or is it a capital improvement program for the long term?

So these are the questions which we are going to have to answer as a Congress. I do agree with the President-Elect and with the Chairman that a stimulus package is necessary, but how do we do

it? How do we do it right, and where should it be focused? Should it be focused on the problem—obviously, I am asking rhetorically—which is the real estate issue? Should it be focused on the more philosophical approach, which would be Keynesian philosophy? Or should it be focused on infrastructure or some combination? And how do we deal with the real issue that is immediately on our table, which is the question of the automobile manufacturers, the American automobile manufacturers?

So again, Mr. Chairman, I thank you for setting this hearing up so that we can get some answers to these questions.

Chairman CONRAD. Excellent questions that the Ranking Member has laid out, and I want to again thank him and his staff for their cooperation in setting up this hearing.

And with that, we will proceed to Dr. Zandi. Welcome.

STATEMENT OF MARK ZANDI, CHIEF ECONOMIST AND CO-FOUNDER, MOODY'S ECONOMY.COM

Mr. ZANDI. Well, thank you. Thank you, Mr. Chairman and the rest of the committee, for the opportunity to be here today.

I strongly support the idea of a fiscal stimulus package for early 2009 into 2010 for two broad reasons. First, the economy is suffering a very severe recession that without stimulus will last through 2009 well into 2010 and it will be, in my judgment, the worst recession since the Great Depression, not in the league of the Great Depression, but the worst since that very dark time.

Second, I think monetary policy, while working very hard to stimulate the economy, has been effectively neutered by the collapse in the financial system. It is very difficult for the lower interest rates and the liquidity that the Fed is providing to the economy to actually have an impact quickly because it only works through the financial system and the system is broken, so credit is not flowing and the cost of credit is not falling. Therefore, monetary policy is particularly ineffective at this point in time, and therefore that requires a fiscal stimulus response.

I think the stimulus package should be large, I think at least $400 billion, which would be two-and-a-half, 3 percent of GDP. I think that would be a good starting point. I think it should be predominately temporary government spending increases. I do think the tax cuts, while helpful, get diluted in this environment because consumer confidence is completely shot and people are going to save the money. They are not going to spend it, and it is not going to be helpful near-term stimulus, and probably that is what happened with the first stimulus package.

I think aid to State government to help in their operating expenses is absolutely vital. I think they are on the verge of significant cuts to everything that they do, and that would be very counterproductive in the current environment.

And I think infrastructure spending is a good idea. It has a big bang for the buck, and I do think there are projects on the table that can get started relatively soon that will have a good measurable impact on the economy.

I think some tax cuts are also in order, and I will go through that in a little bit more detail in a few minutes.

Let me just say, before I dive into a PowerPoint to illustrate these points in more detail, I do think a much broader foreclosure mitigation plan is necessary, that the efforts to date, from FHA Secure to HOPE NOW to Hope for Homeowners, are good steps, but they are significant impediments for them to work in a significant way, and the foreclosure problem is very, very serious and will get much more serious next year and undermine all the good things that we are trying to do and you are trying to do unless we keep more people in their homes.

I also think that help for the auto makers is essential, because I think they employ 250,000 people in the United States, but 2.5 million jobs are at risk if they go into bankruptcy, because if they go into bankruptcy, it is likely going to be a liquidation. We will see a lot of shuttered operations and a lot of lost jobs at just the wrong time. But I do think the best way to help them would be a prepackaged bankruptcy where the government would guarantee the financing in bankruptcy, so that the bankruptcy court would be responsible for restructuring the auto makers and making sure that they are viable institutions, companies going forward. I think that would be the most logical and best way to do it.

OK. Now having said that, let me just reinforce some of these points with a few slides.

First, I think stimulus is needed because the economy is in a very severe recession. Job loss has been serious. We have lost, as you can see here, jobs since the beginning of the year. This is the month-to-month change in jobs since January of 2007 through October of 2008. We have lost 1.2 million jobs since the beginning of the year.

The job losses are very broad-based across all industries. The only industries that are adding to payrolls in a consistent way are health care and educational services, a little bit of defense, some ag, a little bit of energy, but that is it.

The job losses and the problems are very broad-based across the country. Unlike other recessions, where the recessions were very regionally focused, this is coast to coast. This shows the States that I think nationwide that are in recession. They are in red. There are 30 States in all. The States that are in orange, they are not in recession but they are at risk. Not all of them will fall into recession. I don't think North Dakota will fall into recession. Wyoming, I doubt it. Texas probably will skirt by. But many of these States will end up in recession, and this is very disconcerting because in other recessions, people who got unemployed, let us say in California, had a place to go for a job. They could move to Phoenix or Las Vegas or Oregon. Now there is no obvious place to go. You are really stuck, and that is, I think, one of the reasons why consumer confidence is as weak as it is.

The other distinguishing feature of this recession is that it is being led by consumers. Most other recessions have been led by over-leveraged businesses that got caught when the economy turned and had to pull back and cut hiring and investment. This go-around, it is being led by over-leveraged consumers, and you can see consumers are under severe financial pressure. This is data based on credit files that we collect from Equifax. The last data point is for the last week of October, so it is very timely data.

As of the last week of October, there was $860 billion in household liabilities that were in delinquency or in default, so first mortgages, second mortgages, student loans, vehicle loans, credit cards, everything. In this data set, that accounts for 7.5 percent of all household liability, so it gives you a sense of the stress that consumers are under.

I think the recession we are in, which in my view began over a year ago, without stimulus will continue on through 2009 into 2010 and there are three links between what is going on in the financial system and the economy that are going to weigh on the economy seriously over the next—over a year.

The first link is credit. The credit spigot has been closed. Credit markets have collapsed. The banking system is under severe stress. And you can see the collapsing credit here. This shows the growth, annualized percentage change growth in debt of households and non-financial businesses on a real basis after inflation. You can see that in the decade from 1998 to 2007, although there is volatility, if you look through, it is about 6 percent annualized growth pretty consistently. Now, it is in negative territory, so it means debt is actually falling on a real basis, and the last time that happened was for a very brief period in 1990–1991 when the savings and loan crisis hit.

The second link is confidence has been completely shattered. Consumer and business confidence is at record lows. Consumer confidence is shown here in the red line. This is a survey conducted by the Conference Board. It is an index, and you can see that it has collapsed in the last month, and this is a record low and this data goes all the way back into the 1960's. It has never been as low as it is today.

Small business confidence, this is from a survey conducted by the National Federation of Independent Businesses. That is the blue line. That is the right-hand scale, another index. And it, too—it is not a record low, but it is very close. And I think recent events are going to be extraordinarily scarring. I don't think confidence comes back easily. People are very nervous for lots of different reasons and that is going to weigh on the economy for a considerable period of time.

The third link is we are all less wealthy and we are going to be a lot less wealthy for a long time to come. Total household net worth has fallen over $12 trillion from the peak, which was a year ago, and of that $12 trillion, $4 trillion is housing wealth, $8 trillion is stock wealth, and it is having an impact on consumers. Retail sales are sharply falling. You can see the relationship between retailing and house prices as a measure of wealth here.

The blue line, right-hand scale, is the percent change a year ago in retail sales, core retail sales excluding vehicles and gasoline, so this is like Christmas sales. I have taken a 3-month moving average of the data just to smooth out the volatility and get to the underlying trend.

The red line is house price growth. That is year-to-year price growth in home values. That is the left-hand scale. The twist here is that house prices lead retailing by 6 months. So what happened in the housing market 6 months ago is saying something about retailing today, and what is going on in the housing market today is

giving you a forecast for retailing over the next 6 months. And you can see the forecast. It shows nominal retail sales growth over the next 6 months of one to 2 percent. Given inflation of a couple percent, that is real declines in retail sales through Christmas. So this will be the worst Christmas since the 1992 Christmas, and perhaps even the 1982 Christmas.

So three links from what is going on in the financial system to the economy, credit, confidence, and wealth. All three of those forces are going to weigh very heavily on the economy for a considerable period of time, well into 2010. So this does call—I am running a little bit out of time, so I am going to skip over monetary policy issues to give other speakers a chance.

But this calls for a stimulus package. And just to give you a sense of what a large stimulus package could mean for the economy is this particular graphic that shows the rate of unemployment assuming no economic stimulus, that is the red bar in the chart, and with an economic stimulus package, the $400 billion package that I mentioned and will just illustrate in a little bit more detail in the next slide. This is based on a simulation of our model of the national economy, and so we produce forecasts for clients and we can use this for simulation purposes to try to understand the impact of these kinds of things.

You can see the unemployment rate with no economic stimulus will rise to 10 percent by the early part of 2010. That would—ten percent, that is a large increase, the largest increase since the Great Depression.

If we have a good, large, well-timed, well-structured stimulus package along with some other steps by policymakers, you can see the peak will still be very high, 8 percent in early 2010, but a measurable difference in the economy's performance.

And here, just to illustrate, this is the package that I put together to illustrate the point. This is a $400 billion package distributed from 2009 to 2010. This is composed of $230 billion of temporary government spending, $100 billion of which is State aid, UI benefits, Food Stamps, and another $100 billion in infrastructure spending. And then $170 billion worth of tax cuts. The investment tax credits that were in the first stimulus package will expire at the end of this year and it makes sense to just extend them so that businesses don't cut investment early in 2009, a pretty simple, not very costly, thing to do.

And I am also proposing some housing tax credits to stimulate home sales to work off some of the excess inventory and to provide some support to the housing market and house prices in 2009. And a temporary tax cut. Here, I just put in a payroll tax holiday, and we can talk about the merits and disadvantages of that if you care to.

But you can see the impact. This shows the annualized growth in GDP, real GDP, from the first half of 2008 through the second half of 2010. You can see the impact of the first stimulus. It was positive, but it was small. And then the impact of the second stimulus, if it is well-timed and structured in the way that I have designed it here.

So just to end, the point would be that I think a stimulus is vitally necessary. Without a stimulus, I think the economy is going

to suffer an extraordinarily severe recession, and with it, it will still suffer a severe recession, but it will be measurably more manageable. Thank you.

[The prepared statement of Mr. Zandi follows:]

Written Testimony of Mark Zandi
Chief Economist and Cofounder Moody's Economy.com

Before the U.S. Senate Budget Committee

"The Economic Outlook and Stimulus Options"

November 19, 2008

Mr. Chairman and members of the committee, my name is Mark Zandi; I am the Chief Economist and Cofounder of Moody's Economy.com.

Moody's Economy.com is part of Moody's Analytics, an independent subsidiary of the Moody's Corporation. My remarks represent my personal views and do not represent those held or endorsed by Moody's. Moody's Economy.com provides economic and financial data and research to over 500 clients in 50 countries, including the largest banks, insurance companies, financial services firms, mutual funds, manufacturers, utilities, industrial and technology clients, and government at all levels.

I strongly support efforts for a very large fiscal stimulus plan designed to help the economy by early 2009. A fiscal stimulus is needed, as the global financial system has effectively collapsed, undermining investor, household and business confidence, and pushing the economy into a lengthy and increasingly severe recession. Without a fiscal stimulus, the economy appears headed toward the worst downturn since the Great Depression.

The proximate cause of the global economic crisis is the collapse of the U.S. housing market and the resulting surge in mortgage loan defaults. Hundreds of billions of dollars in losses on these mortgages have undermined the financial institutions that originated and invested in them, including some of the largest and most venerable in the world. Many have failed, and most others are struggling to survive. Banks are fearful about extending credit to one another, let alone to businesses and households. With the credit spigot closing, the global economy is withering. Global stock investors have dumped their holdings as they come to terms with the implications for corporate earnings. A self-reinforcing adverse cycle has begun: The eroding financial system is upending the economy, putting further pressure on the financial system as the performance of everything from credit cards to commercial mortgage loans sours.

This cycle can be mitigated only by aggressive and consistent government action. In the United States, the public policy response to the financial crisis has been without precedent. The full faith and credit of the U.S. government now effectively backstop the financial system, significant parts of which have been nationalized. With the takeover of Fannie Mae and Freddie Mac, the government makes nearly all the nation's residential mortgage loans. And as the $700 billion troubled asset relief program (TARP) is deployed, the government is gaining sizable ownership stakes in the nation's largest financial institutions.

In an effort to restart money and credit markets, the Federal Reserve has vastly expanded its role. The central bank can now lend to whomever and buy whatever it deems necessary, essentially without limit. The Fed has also engineered an unprecedented coordinated interest rate cut with other central banks, more than doubled the size of its balance sheet to pump liquidity into the financial system, and is buying commercial paper and other money market instruments directly from issuers and money market funds.

Policymakers have also worked to directly shore up the housing and mortgage markets and broader economy. A number of efforts have been put in place to enable stressed homeowners to avoid foreclosure. These include programs called FHA Secure, Hope Now, and Hope for Homeowners. Fiscal stimulus, including this summer's refundable tax rebates and the investment tax incentives that remain in place through the end of the year, have provided some economic support.

Much more needs to be done to quell the financial panic and mitigate what threatens to become the

worst economic setback since the Great Depression. The TARP funds need to be deployed aggressively and more broadly. The equity infusions should be extended beyond commercial banks to other institutions whose failure would threaten the financial system and broader economy. Using the funds to shore up the consumer lending market as proposed by the Treasury Department would be helpful, but failing to follow through on purchases of distressed assets via reverse auctions or other mechanisms as initially envisaged for the TARP is a mistake. In theory, the auctions are an elegant way to determine market values for these now-impossible-to-price assets. With price discovery will come clarity about which financial institutions are undercapitalized and by how much. Clarity, in turn, will attract the private capital ultimately needed to bolster the financial system. In practice, the auctions may not go as well, given the complexity of the assets to be purchased. If so, then the cost of trying will also be small.

A much larger and more comprehensive foreclosure mitigation plan is also needed. Millions of homeowners owe more than their home is worth, and unemployment is rising quickly. Foreclosures, already at record-high levels, are sure to mount. The Hope Now and Hope for Homeowners programs face severe impediments and even under the best of circumstances will likely be overwhelmed by the wave of foreclosures still coming. No plan will keep house prices from falling further, but quick action could avoid the darker scenarios in which crashing house prices force millions more people from their homes, completely undermining the financial system and economy.

Additional monetary and fiscal stimulus measures are also necessary. With inflation receding and deflation concerns likely to predominate soon, there are few impediments to further interest rate cuts by the Federal Reserve. The only issue is how close to zero the federal funds target rate can go before it begins to undermine money market funds, which need some return on their investments to cover their operating costs. More importantly, with the Fed's new ability to pay interest on bank reserves, there is no limit on how much liquidity the Fed can provide to the financial system.

Perhaps the most important policy step needed soon is another very large fiscal stimulus package. The package should both cut taxes and increase spending beginning early next year, when the economy is likely to be at its most vulnerable. The stimulus must be large, totaling at least $400 billion, equal to more than 2.5% of the nation's gross domestic product, as GDP is set to decline by at least that much without it. Extending unemployment insurance benefits, food stamps, and aid to state governments would be the most effective spurs to economic growth, but even increased infrastructure spending could be desirable considering that the economy's problems are likely to last long enough to give such spending enough time to be of help. The tax cuts should include the codification of the low marginal personal tax rates for lower- and middle-income households, assurances to higher-income households that their tax rates will not increase any time soon, temporary tax incentives to support business investment and home sales, and a temporary tax cut designed to help lower- and middle-income households and small businesses.

With government making so many monumental decisions in such a short time, there will surely be unintended consequences. Some may already be evident: Nationalizing Fannie Mae and Freddie Mac while not rescuing Lehman Brothers from bankruptcy may very well have set off the financial panic. And policymakers need to be wary of the costs of their actions, as global investors will eventually demand higher interest rates on the soaring volume of U.S. Treasury debt. Any measurable increase in long-term interest rates would be counterproductive; its effect on the housing market and the rest of the economy would offset the economic benefits from the fiscal stimulus.

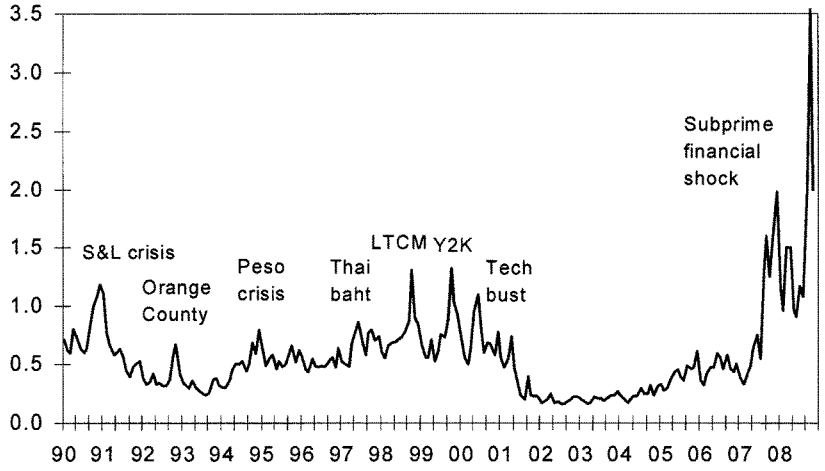
But policymakers' most serious missteps so far have come from acting too slowly, too timidly, and in a seemingly scattershot way. Early on in the crisis, there were reasonable worries about moral hazard and fairness: Bailing out those who took on, originated or invested in untenable mortgage loans would only encourage such bad behavior in the future. And a bailout would certainly be unfair to those homeowners still managing to make their mortgage payments. But as the crisis deepened and continued, those worries hindered policymakers far too long, allowing the panic to develop. With so many suffering so much financial loss, moral hazard is no longer an issue. Debate over whether it is fair to help stressed households stay in their homes appears quaint. Their problems are clearly everyone's problems. Only quick, overwhelming and consistent government action will instill the confidence necessary to restore financial stability and restart economic growth.

The economic backdrop

The need for more policy action is evident in the increasingly dark financial and economic backdrop. The financial panic that began in early September with the nationalization of Fannie and Freddie may have passed its apex, but the collective psyche remains frazzled. And even if the panic soon subsides, the economic damage has been done. The collapse in confidence, the massive loss of wealth, and the intensifying credit crunch ensure that the U.S. economy will struggle for some time to come.

Money markets are improving—thanks to massive intervention by global central banks—but remain far from normal. The difference between three-month Libor and three-month Treasury bill rates—a good proxy for the angst in the banking system—is still an extraordinarily wide 200 basis points (see Chart 1).[1] This is down from the record spreads of mid-October, which topped 450 basis points, but it is still stratospheric compared with past financial crises, not to mention the average 50-basis point spread that prevails in normal times. The Fed's program to purchase commercial paper directly from issuers has pushed those short-term rates down as well, but they, too, are still very high.

Chart 1: On the Precipice of Collapse
Difference between 3 month Libor and Treasury bill yields



Credit markets remain badly shaken. Bond issuance has come to a standstill. No residential or commercial-backed securities have been issued in recent months, and there has been very little issuance of junk corporate bonds and emerging market debt. Asset-backed issuance of credit cards, vehicle and student loans, and municipal bond issuance also remain severely disrupted. Investment-grade bond issuance has held up somewhat better, but even this all but dried up in October. Credit spreads—the extra yield investors require to be compensated for the perceived added risk of investing in riskier bonds—also remain strikingly wide as investors shun anything but risk-free Treasury bonds. The difference between yields on junk corporate bonds and 10-year Treasuries has ballooned to some 1,700 basis points, and between emerging debt and Treasuries to well over 1,100 basis points. Historically, yield spreads for both have averaged closer to 500 basis points.

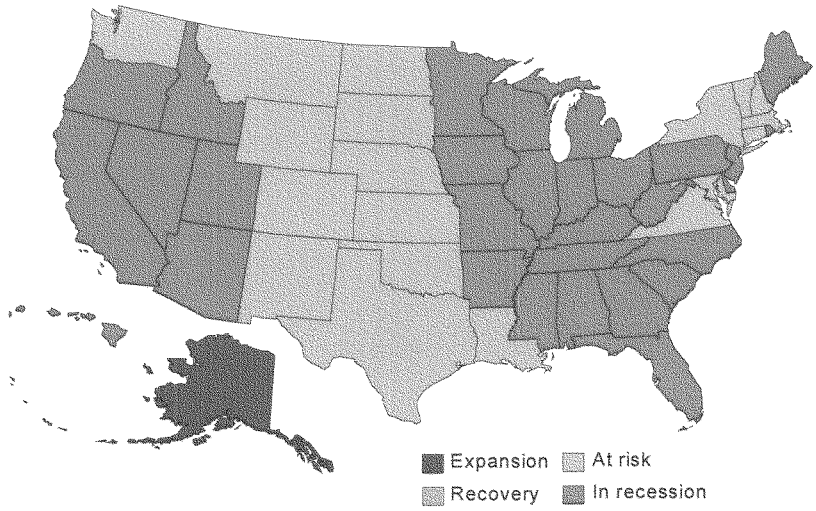
Commodity and foreign currency markets have been roiled. Oil prices have fallen more than 50% from

their record peaks in early July, and prices for commodities from copper to corn have plunged. Global commodity demand is weakening rapidly as the global recession undercuts the financial demand that had sent prices surging this past summer. Economies reliant on commodity production have been hit hard, and their currencies have rapidly depreciated. The Canadian dollar, which had been close to parity with the U.S. dollar as recently as this summer, has dropped below 80 U.S. cents, and the Brazilian real has fallen more than 40% against the U.S. dollar since the panic began.[ii]

Volatility in global stock markets has been unprecedented and the price declines nerve-wracking. Since the downdraft began a few weeks ago, global stock prices are off a stunning 30% in local currency terms and more than 40% from their year-ago highs. No market has been spared. The declines have been so precipitous that U.S. and European bourses have tried imposing limits on short-selling, and Russia has suspended trading for days at a time. All of this has been to no avail. Mutual fund, 401(k) and hedge fund investors simply want out of stocks, regardless of the losses and any associated penalties.

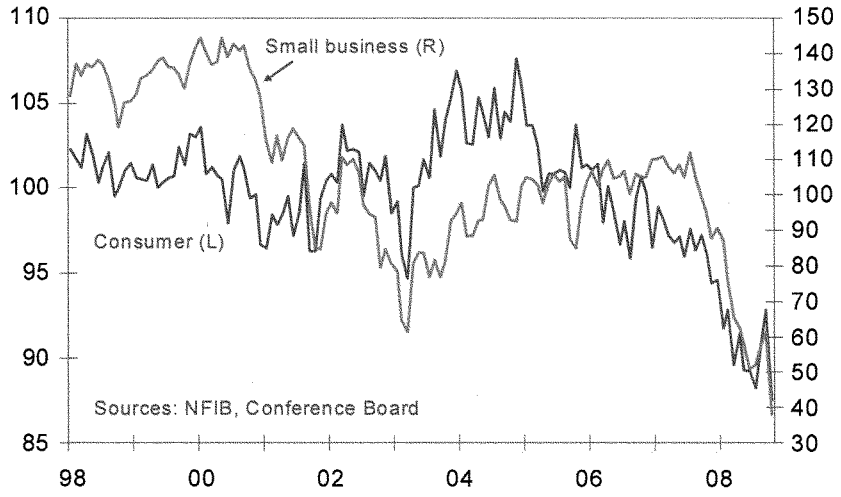
Even if the global financial system stabilizes soon, substantial damage has already been done. The U.S. economy was struggling before the financial panic hit; it has likely been in recession for at least a year. Real GDP fell in the last quarter of 2007 and again in the third quarter of 2008.[iii] Some 1.2 million jobs have already been lost so far on net, and the unemployment rate has risen by over 2 percentage points to 6.5%. The downturn is broad-based across industries and regions, with 30 states now in recession (see Chart 2).[iv] Data since the panic hit have been uniformly bad, suggesting that the downturn is intensifying. Retail sales, vehicle sales and industrial production have plunged, and the increase in unemployment insurance claims in November is consistent with monthly job losses approaching 300,000.

Chart 2: Recession From Coast-to-Coast



The panic's most immediate fallout is the blow to confidence. Consumer confidence crashed in October to its lowest reading since the Conference Board began its survey more than 40 years ago. This is all the more surprising given the plunge in gasoline prices during the month; cheaper motor fuel in times past has always lifted households' spirits. Small business confidence as measured by the National Federation of Independent Businesses has also plunged (see Chart 3).

Chart 3: A Body Blow to Confidence
Consumer and business confidence

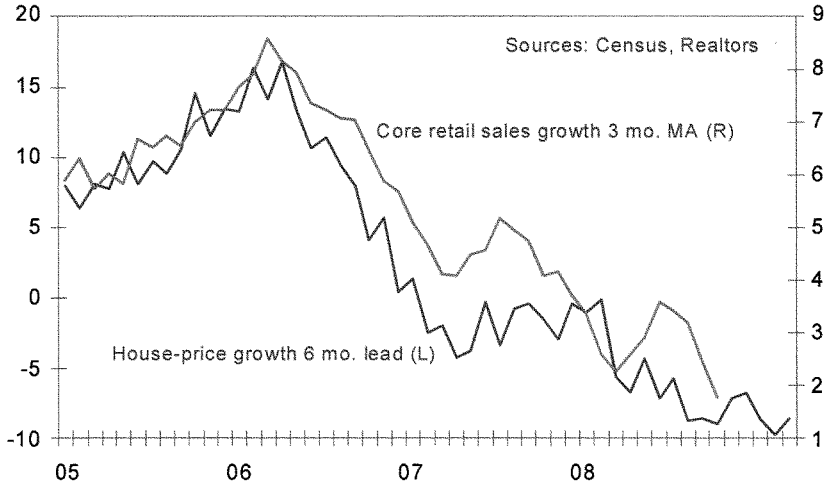


Current events have so soured sentiment that they are sure to have long-lasting effects on household spending and saving, as well as on business decisions regarding payrolls and investment.

The pessimism will magnify the effect of evaporating household wealth. Net worth has fallen close to $12 trillion since peaking a year ago; of that, $4 trillion results from the 20% decline in house prices, while the rest is due to the 40% decline in stock prices. Every dollar loss in household net worth reduces consumer spending by 5 cents over the next two years.[v] If sustained, the wealth lost over the past year could thus cut $300 billion from consumer spending in 2009 and a like amount in 2010.

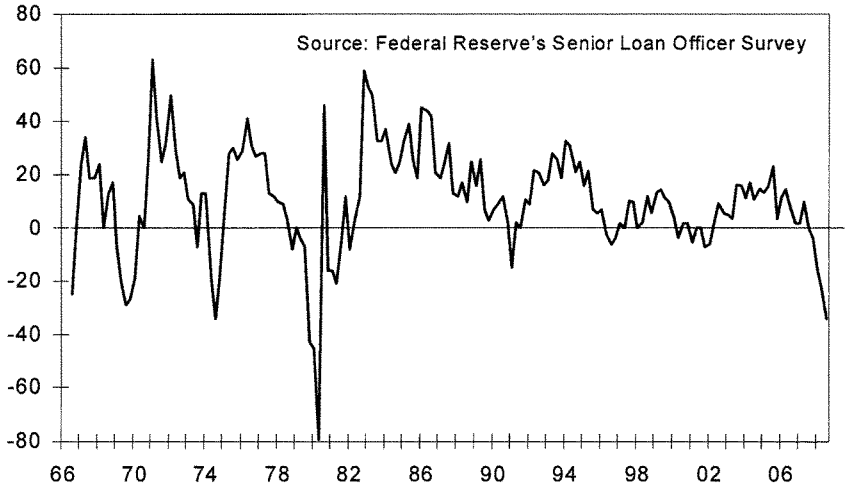
More than in past recessions, the financial pain of this recession is being felt by all Americans, from lower-income households losing jobs to affluent households with diminished nest eggs. This is evident in the sharply weaker sales at high-end retailers such as Nordstrom, Neiman Marcus and Bergdorf Goodman. Usually the wealth effect is so small that it can be determined only econometrically; now it is potent enough to be apparent visually. Since the housing bubble began to deflate, the link between retail sales and house prices has been striking (see Chart 4). Falling house prices appear to curb retail sales with a lag of about six months, as homeowners do not immediately adjust their spending to a change in housing wealth. The current declines in house prices suggest that this Christmas will be as tough for retailers as any since 1992. Moreover, if house prices decline substantially further as expected, then retailers' troubles will last through Christmas 2009.

Chart 4: Smaller Nest Eggs, Less Spending



The financial panic is also reducing the availability and raising the cost of credit. Credit growth was weakening rapidly even before recent events. The Federal Reserve's Flow of Funds shows debt owed by households and nonfinancial corporations actually fell in the second quarter of 2008 after inflation, for the first time since the savings and loan crisis of the early 1990s. To date, the weakening in credit growth is largely due to disruptions in the bond and money markets. Lending by banks, S&Ls and credit unions has remained sturdy. But this is probably only because nervous borrowers have pulled down available credit lines, and with banks now battening down their underwriting standards and cutting lines, this source of credit is drying up. According to the Fed's senior loan officer survey, lenders have tightened credit over the past year as aggressively as they ever have. The net percent of loan officers who say they are willing to make a consumer loan is the lowest ever, with the exception of 1980 when the Carter administration briefly imposed credit controls (see Chart 5).[vi]

Chart 5: Banks Fight to Survive, Not to Make a Loan
Net % of lenders willing to make a consumer loan



The pernicious impact of a credit crunch on the economy is difficult to quantify, but the economy's performances during the early 1980s and early 1990s suggest it can be substantial. The 1980s downturn was the most severe in the post-World War II period, and while the 1990s downturn was not as bad, the economy struggled long after the recession formally ended. Using these two periods as a guide suggests that for every 1 percentage point decline in real credit growth, real GDP growth weakens in the subsequent year by approximately 35 basis points. Thus, if real credit shrinks 5% by the end of this year, which seems plausible, then this credit effect will cut some $275 billion from GDP in 2009.

One significant positive for the U.S. economy has come out of the financial panic: lower energy and commodity prices. With oil now trading below $70 per barrel, a gallon of regular unleaded gasoline should soon cost no more than $2. Gasoline prices peaked during the summer above $4 per gallon and have averaged closer to $3 over the past year. Every penny-per-gallon decline in the cost of gasoline saves U.S. consumers just over $1 billion a year. Assuming gas remains at $2 per gallon through the coming year, Americans will save more than $100 billion in 2009 compared with fuel costs in 2008. There will also be measurable savings on home heating and food bills as agricultural and transportation costs fall. Total savings next year compared with this year will thus approach $175 billion.

Calculating the costs to the economy from the wealth and credit effects, less the benefits from lower commodity prices, puts the net direct cost of the financial panic at $400 billion in 2009, or more than 2.5% of GDP. (A $300 billion wealth effect plus $275 billion credit crunch effect minus $175 billion in savings due to lower commodity prices.) This is, of course, a simplistic analysis; it does not account for all the indirect costs of the panic on the economy and the multipliers, but it gives a sense of the magnitude of the fallout.

Muted monetary stimulus

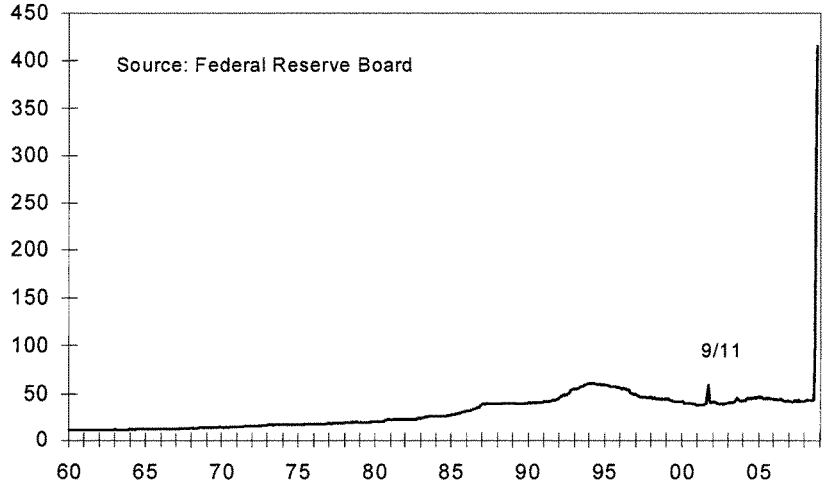
Reinforcing the need for fiscal stimulus is monetary policy's increasing inability to revive the economy. Monetary stimulus supports the economy by lowering the cost of credit and promoting the availability of credit. Even though the Federal Reserve has aggressively lowered the federal funds rate and is providing massive liquidity to the financial system, these efforts have yet to get credit flowing again or

measurably lower its cost. The Federal Reserve's unprecedented efforts will ultimately succeed, but given the severe disrepair of the financial system, this will be very slow to occur.

The Federal Reserve is running out of room to lower the federal funds rate. Policymakers are likely to lower the funds rate target one more time to 0.5% at the December Federal Open Market Committee meeting, but any further rate reductions may not be feasible. One problem that would be created by lowering rates further would be to jeopardize already-stressed money market mutual funds. The average money fund has operating costs of close to 50 basis points and would thus become quickly unprofitable if the return on their short-term investments, which are closely tied to the funds rate, were to fall below that.[vii]

The Fed will continue to flood the financial system with liquidity despite reaching the zero bound on the federal funds rate. The TARP legislation granted the Fed authority to pay interest on bank reserves. The Fed has set this deposit rate to just below the funds rate target. This seemingly innocuous technical change allows the Fed to inject unlimited reserves into the system and maintain the funds rate at the deposit rate. Financial institutions will choose to deposit their excess reserves with the Fed to collect the deposit rate rather than lend them out at a lower rate. Although the Fed is having some difficulty making this work properly, it has pumped a massive amount of reserves into the financial system in recent weeks (see Chart 6).

Chart 6: The Fed Floods the Financial System
Bank reserves, $ bil



To flood the financial system with even more liquidity, the Fed is ramping up lending to a wide range of financial institutions through credit facilities it has established over the past year. These facilities allow financial institutions to borrow from the Fed, using securities they own as collateral. The Fed has repeatedly lowered the bar on the collateral it will accept, taking on progressively less liquid securities to encourage more borrowing. To bring overseas financial institutions into the mix, the Fed has greatly expanded its swap lines with global central banks. Foreign central banks can exchange U.S. dollars for their own currencies rather than buying up dollars in foreign exchange markets. Such swap lines have been set up with central banks of developed as well as emerging economies. The Fed is also providing liquidity by exercising its new ability to purchase commercial paper directly from issuers. The implications of this program go far beyond the commercial paper market; the Fed now has a mechanism to purchase just about anything it deems necessary.[viii]

Money markets are responding to the Fed's unprecedented actions. Libor has fallen, suggesting that the interbank lending market is coming back to life. Commercial paper rates have also fallen, and the volume of new issuance has sharply increased. Despite the better money market conditions, they remain far from normal. Moreover, even after financial institutions begin lending more freely to one another, they will be slow to extend credit more freely to households and businesses, given their mounting worries over the creditworthiness of all borrowers in a severe recession.

How large a fiscal stimulus?

The goal of fiscal stimulus measures is to maximize the near-term boost to economic growth without weakening the economy's longer-term prospects. This requires that the stimulus be implemented quickly and that its benefits go first and predominately to those hurt most by the economy's problems. The amount spent on the stimulus should be large enough to provide a measurable boost, but not so large that it harms the nation's long-term fiscal condition. The likely severity and length of the current recession means the stimulus plan should be very large: Given that the direct economic costs of the financial panic are estimated at $400 billion, this would be a good benchmark. Such a stimulus plan would be four times the size of the tax rebate checks mailed this past summer and would equal more than 2.5% of GDP.

To provide the largest bang for the buck, a well-designed stimulus plan should include a temporary increase in government spending. Spending increases benefit the economy as soon as the money is disbursed, and the economic benefit is less likely to be diluted by increased imports. The most efficacious spending includes extending unemployment insurance benefits, expanding the food stamp program, and increasing aid to hard-pressed state and local governments. Increasing infrastructure spending would also greatly boost the economy, particularly in the current downturn, as the economy's problems are expected to last for an extended period.

Tax cuts should also be part of a well-designed stimulus plan. This would include codifying the current personal marginal tax rates for lower- and middle-income households, assuring higher-income households that their tax rates will not increase any time soon, providing temporary tax incentives to support business investment and stimulate home sales, and providing a temporary tax cut, such as a payroll tax holiday, that would benefit lower- and middle-income households and small businesses.

UI and food stamps

Extra benefits for workers who exhaust their regular 26 weeks of unemployment insurance benefits and expanded food stamp payments have been part of the federal response to most recessions, and for good reason: They are the most efficient ways to prime the economy's pump. Simulations of the Moody's Economy.com macroeconomic model show that every dollar spent on UI benefits generates an estimated $1.63 in near-term GDP. [ix] Boosting food stamp payments by $1 increases GDP by $1.73 (see Table 1). People who receive these benefits are hard-pressed and will spend any financial aid they receive very quickly. Another advantage is that these programs are already operating and can quickly deliver a benefit increase to recipients. The virtue of extending UI benefits goes beyond simply providing financial aid for the jobless to more broadly shoring up household confidence. Nothing is more psychologically debilitating, even to those still employed, than watching unemployed friends and relatives lose their sources of support.[x] Increasing food stamp benefits has the added virtue of helping people ineligible for UI such as part-time workers.

Table 1: Fiscal Stimulus Bang for the Buck
Source. Moody's Economy.com

	Bang for the Buck
Tax Cuts	
Non-refundable Lump-Sum Tax Rebate	1.01
Refundable Lump-Sum Tax Rebate	1.22
Temporary Tax Cuts	
Payroll Tax Holiday	1.28
Across the Board Tax Cut	1.03
Accelerated Depreciation	0.25
Permanent Tax Cuts	
Extend Alternative Minimum Tax Patch	0.49
Make Bush Income Tax Cuts Permanent	0.31
Make Dividend and Capital Gains Tax Cuts Permanent	0.38
Cut in Corporate Tax Rate	0.30
Spending Increases	
Extending Unemployment Insurance Benefits	1.63
Temporary Increase in Food Stamps	1.73
General Aid to State Governments	1.38
Increased Infrastructure Spending	1.59

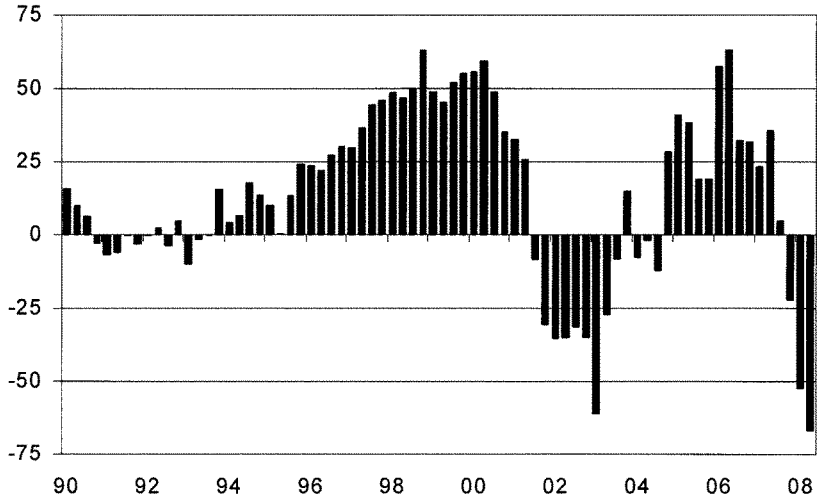
Note: The bang for the buck is estimated by the one year $ change in GDP for a given $ reduction in federal tax revenue or increase in spending

Aiding state and local governments

Another economically potent stimulus is to provide additional aid to financially pressed state governments. This could take the form of general aid or a temporary increase in the Medicaid matching rate to ease the costs of healthcare coverage.

Forty-one states and a rapidly increasing number of localities are already grappling with significant fiscal problems. Tax revenue growth has slowed sharply along with falling home sales, property values, retail sales, and corporate profits. Personal income tax receipts have also begun to suffer as the job market slumps. Big states including California and Florida are under severe financial pressure, and smaller states including Arizona, Minnesota and Maryland are struggling significantly. The gap between state and local government revenues and expenditures ballooned to over $60 billion—a record—in the second quarter of 2008, according to the Bureau of Economic Analysis (see Chart 7).

Chart 7: State & Local Budget Shortfall Deepens
State and local govt. expenditures less tax revenues, $ bil



Because most state governments are required by their constitutions to quickly eliminate their deficits, most have drawn down their reserve funds and have already begun to cut programs ranging from healthcare to education. Cuts in state and local government outlays are sure to be a substantial drag on the economy in 2009 and 2010. Additional federal aid to state governments will fund existing payrolls and programs, providing a relatively quick economic boost. States that receive checks from the federal government will quickly pass the money on to workers, vendors and program beneficiaries.

Arguments that state governments should be forced to cut spending because they have grown bloated and irresponsible are strained, at best. State government spending and employment are no larger today as a share of total economic activity and employment than they were three decades ago. The contention that helping states today will encourage more profligacy in the future also appears overdone. Apportioning federal aid to states based on their size, rather than on the size of their budget shortfalls, would substantially mitigate this concern.

Infrastructure spending

Increased infrastructure spending is also a particularly effective way to stimulate the economy. The boost to GDP from a dollar spent on building new bridges and schools is large—an estimated $1.59—and there is little doubt that major infrastructure investment is needed. The case against including such spending as a part of a stimulus plan, however, is that it generally takes a substantial amount of time for funds to flow to builders and contractors and into the broader economy.[xi] Infrastructure projects can take years from planning to completion. Even if the funds are used to finance only projects that are well along in their planning, it is very difficult to know just when projects will get under way and the when the money will be spent. Although this caveat is important in many cases, the economy's problems could extend well into 2010, which weakens the case against infrastructure spending in the current downturn.

Personal tax rates

Under current law, personal marginal tax rates and capital gains and dividend income tax rates are set to increase beginning in 2011 when the 2001 and 2003 tax cuts start to expire. At expiration, 1) the top

marginal tax rate for individuals will increase from 35% to 39.6%; 2) the maximum long term capital gains tax rate will increase from 15% to 20%; and 3) the top tax rate on divided income will increase from 15% to 39.6%. A modest stimulus would be provided by codifying the currently lower tax rates for individuals who make less than $250,000 annually as promised by President-elect Obama. While taxpayers earning more than $250,000 annually likely expect their tax rates to rise, it would be beneficial if they are assured that this will not occur until later in the next decade and that future tax increases will be phased in over several years.

Investment and housing tax incentives

Temporary tax incentives to support business investment and stimulate home sales would also provide an important economic boost. Accelerated depreciation by large businesses and expensing of investment by small businesses were included in the fiscal stimulus provided early this year. These tax benefits are set to expire at the end of this year, giving businesses an incentive to invest now at the cost of weaker investment at early next year. The timing would be particularly bad given that the economy will likely be at its weakest in early 2009. Extending these tax incentives for another year until the end of 2009 would thus forestall this badly timed weakening in business investment.

Another important boost to the hard-pressed housing market would come from giving people an incentive to purchase a home in 2009. This would help work off the large amount of excess housing inventory and help stop the decline in housing values. For first-time buyers of owner-occupied homes, a particularly attractive incentive would be a homebuyer tax credit equal to 10% of the purchased home's value, capped at 3.5% of FHA loan limits, which vary according to location. This money would be made available to the first-time buyer at closing to help with the necessary downpayment. The homebuyer would have to at least meet all other FHA underwriting criteria. Repeat buyers of owner-occupied homes who purchase a home in 2009 would be able to double their mortgage interest tax deduction in the first year after the purchase, take an additional 75% of the deduction in the following year, 50% in the third year, 25% in the fourth year, and nothing after that. For the average homebuyer in 2009, this bonus mortgage interest deduction would be worth approximately $7,500 on a net present value basis.

Payroll tax holiday

One reasonably efficacious way to provide quick relief to working cash-strapped households and businesses would be to implement a payroll tax holiday. A holiday applied to the employees' share of the tax would have the advantage of directing more of the reduction to households more likely to spend it, even reaching taxpayers who could not qualify for a rebate on the basis of income tax returns. For most households, the monies would be deposited directly into their checking accounts, thus increasing the amount that would be spent quickly. A holiday for the employers' share of the tax would be especially helpful for smaller businesses and could have the benefit of stemming some layoffs as labor costs would be temporarily reduced. Any administration complications from turning withholding schedules on and off should be modest.

Economic impact of stimulus measures

Unless policymakers quickly implement a very large and effective fiscal stimulus plan, the economy appears headed for the worst downturn since the Great Depression. The Moody's Economy.com macroeconomic model's simulation results support this assessment. Simulating the model assuming that there is no added fiscal stimulus except for that provided by the automatic stabilizers already in place, real GDP would decline for seven straight quarters, falling by a stunning 2.6% in 2009. This would be more severe than the 1.9% decline of 1982, the worst year for the economy since the Depression. Nearly 5 million jobs would be lost from the peak in employment at the start of 2008 to the bottom in employment by mid-2010, pushing the unemployment rate to over 10% by late 2010.

The implementation of a fiscal stimulus plan beginning in early 2009 would make a substantial difference to the economic outlook. This can be seen by simulating the macro model assuming that a $400 billion stimulus program is implemented in 2009 and 2010 (see Table 2). The plan includes $230 billion in

increased government spending, composed of $30 billion in additional spending on UI benefits and foods stamps, $100 billion in increased aid to state governments, and $100 billion in greater infrastructure spending. The plan also includes $170 billion in tax cuts, composed of $30 billion to extend various investment tax credits for businesses that are set to expire at the end of this year which were part of this year's fiscal stimulus, $40 billion in tax incentives to stimulate housing demand, and $100 billion to cover the costs of a payroll tax holiday in May and June 2009 to lower income households and small businesses. The stimulus also includes changes to the tax law to make permanent current marginal tax rates for taxpayers that make less than $250,000 a year, and to allow for a phase in between 2012 and 2015 of higher marginal rates for taxpayers who make more. [xii]

Table 2: $400 billion Fiscal Stimulus Plan
Source. Moody's Economy.com

	Billions $
Total	$400
Spending	$230
Extending Unemployment Insurance	$15
Expanding Food Stamps	$15
Aid to State and Local Government	$100
Infrastructure Spending	$100
Taxes	$170
Investment Tax Credits	$30
Housing Tax Incentives	$40
Payroll Tax Holiday	$100

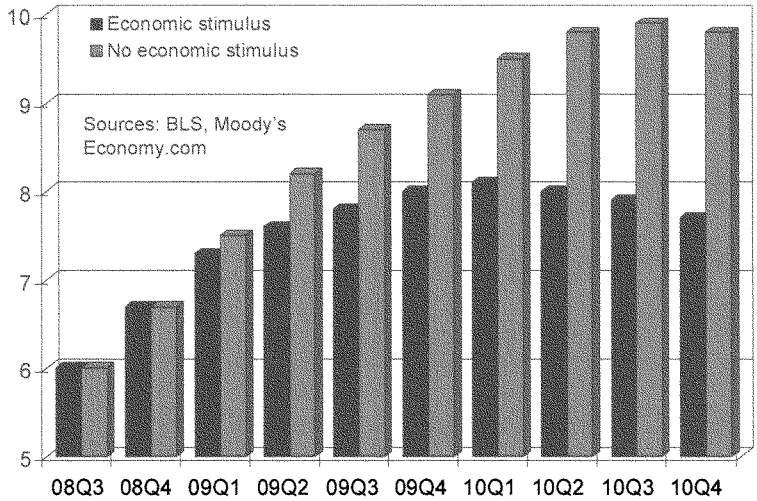
The $400 billion stimulus plan would add more than 2 percentage points to annualized real GDP growth in 2009. Real GDP still would decline during the year, but by a much smaller 0.3% (see Table 3). The stimulus limits the peak-to-trough decline in jobs to some 2.5 million, and the unemployment rate peaks at just over 8% in early 2010. With the stimulus, the unemployment rate would fall back to its full employment rate of nearly 5% by the end of 2012. Without the stimulus, the unemployment rate ends 2012 at a still very high 7.5%.

Table 3: The Economic Benefit of Fiscal Stimulus
Sources: BEA, BLS, Moody's Economy.com

	Real GDP, Billions 2000$			Real GDP, % Change		
	No Stimulus	Stimulus	Difference	No Stimulus	Stimulus	Difference
2007	11,523.9	11,523 9	-	2 03	2.03	-
2008	11,686.1	11,687.5	1.5	1 41	1.42	0.0
2009	11,384.6	11,648.5	264.0	-2.58	-0.33	2.2
2010	11,446 0	11,970.5	524.5	0 54	2.76	2.2
2011	11,826 0	12,533.9	707.9	3.32	4.61	1.3
2012	12,468 2	12,962.7	494.5	5.43	3.62	(1.8)

	Unemployment Rate			Payroll Employment, Millions		
	No Stimulus	Stimulus	Difference	No Stimulus	Stimulus	Difference
2007	4.64	4.64	-	137.6	137.6	-
2008	5.63	5.62	(0.0)	137 5	137.6	0.0
2009	8.36	7.59	(0.8)	133.2	134.9	1.8
2010	9.92	7.91	(2.0)	132 9	136 6	3.7
2011	9 63	6.87	(2.8)	135 4	140.1	4 7
2012	8 04	5.52	(2.5)	140 0	143.4	3.4

Chart 8: 10% Unemployment Without Stimulus
Unemployment rate



Despite the added federal government borrowing necessary to finance the fiscal stimulus plan, it would not lead to excessively higher long-term interest rates. Given all of the current demands on the Treasury, total bond issuance with the stimulus would approach a record $2 trillion in fiscal 2009 and about the same in fiscal 2010, but private bond issuance would remain extraordinarily depressed during this period. The moribund issuance of corporate debt, emerging market debt, and private-label mortgage and asset-backed debt will eventually revive, but total credit market needs including the record Treasury issuance will remain modest enough that the 10-year Treasury yield would remain below 5% through 2010. It is now firmly below 4%. Other long-term rates, including corporate bond and mortgage rates, would rise by even less as credit spreads narrowed, reflecting the stronger economy and reduced credit concerns.

Conclusions

A long history of public policy mistakes has contributed to this crisis. Although there will surely be more missteps, only through further aggressive and consistent government action will the U.S. avoid the most severe economic downturn since the Great Depression.

In some respects, this crisis has its genesis in the long-held economic policy objective of promoting homeownership. Since the 1930s, policy has been geared toward increasing homeownership by heavily subsidizing home purchases. Although homeownership is a worthy goal, fostering stable and successful communities, it was carried too far, producing a bubble when millions of people became homeowners who probably should not have. These people are now losing their homes in foreclosure, undermining the viability of the financial system and precipitating the current recession.

Perhaps even more important has been the lack of effective regulatory oversight. The deregulation that began during the Reagan administration fostered financial innovation and increased the flow of credit to businesses and households. But deregulatory fervor went too far during the housing boom. Mortgage lenders established corporate structures to avoid oversight, while at the Federal Reserve, the nation's most important financial regulator, there was a general distrust of regulation.

Despite all this, the panic that has roiled financial markets might have been avoided if policymakers

had responded more aggressively to the crisis early on. Officials misjudged the severity of the situation and allowed themselves to be hung up by concerns about moral hazard and fairness. Considering the widespread loss of wealth, it is now clear they waited much too long to act, and their response to the financial failures in early September was inconsistent and ad hoc. Nationalizing Fannie Mae and Freddie Mac but letting Lehman Brothers fail confused and spooked global investors. The shocking initial failure of Congress to pass the TARP legislation caused credit markets to freeze and sent stock and commodity prices crashing.

Now, a new policy consensus has been forged out of financial collapse. It is widely held that policymakers must take aggressive and consistent action to quell the panic and mitigate the resulting economic fallout. An unfettered Federal Reserve will pump an unprecedented amount of liquidity into the financial system to unlock money and credit markets. The TARP fund will be deployed more broadly, and another much larger and comprehensive mortgage loan modification program is needed to blunt further increases in foreclosures. Finally, another very sizable economic stimulus plan will be needed early next year. The most economically efficient plan would include aid to state governments and infrastructure spending, in addition to another round of tax cuts. The economy's problems are likely to continue long enough to make such spending particularly helpful a year from now.

Each of these measures carries substantial costs. The federal budget deficit, which topped $450 billion in the just-ended 2008 fiscal year, could easily exceed $1 trillion in fiscal 2009 and go even higher in 2010. Borrowing by the Treasury could top $2 trillion this year. There will also be substantial long-term costs to extricate the government from the financial system. Unintended consequences of all the actions taken in such a short period will be considerable. These are problems for another day, however. The financial system is in disarray, and the economy's struggles are intensifying. Policymakers are working hard to quell the panic and shore up the economy; but given the magnitude of the crisis and the continuing risks, policymakers must be aggressive. Whether from a natural disaster, a terrorist attack, or a financial calamity, crises end only with overwhelming government action.

---

[i] The London interbank offered rate is the interest rate at which major banks lend to each other.

[ii] Currency swings have been wild enough to prompt discussion of coordinated government intervention. This seems unlikely, in part because the currency moves until recently have been largely welcome. A stronger U.S. dollar means global investors still view the U.S. as a safe haven, which is important as the Treasury ramps up borrowing. Nations whose currencies are falling against the dollar are hopeful that this will reduce pressures on their key export industries.

[iii] When all the GDP revisions are in, it is expected to show that real GDP also fell in the first quarter of 2008. Second quarter growth was supported by the tax rebate checks as part of the first fiscal stimulus package.

[iv] State recessions are determined using a methodology similar to that used by the business cycle dating committee of the National Bureau of Economic Research for national recessions.

[v] For a more thorough discussion of the wealth effect, see "MEW Matters," Zandi and Pozsar, *Regional Financial Review*, April 2006. In this article, the housing wealth effect is estimated to be closer to 7 cents while the stock wealth effect is nearer to 4 cents.

[vi] This was part of a failed effort to rein in the double-digit inflation of the period.

[vii] The expense ratio for money funds varies from 10 to 100 basis points, with averages of 30 basis points for institutional funds and 55 basis points for retail funds. A funds rate target of below 50 basis points could also exacerbate the failure problem in the Treasury market.

[viii] A hypothetical but plausible example would be for the Fed to purchase municipal bonds if state and local fiscal conditions continue to erode, threatening a string of municipal bond defaults. Such defaults would almost certainly reignite the financial panic since most investors perceive municipal bonds to be super-safe.

[ix] The model is a large-scale econometric model of the U.S. economy. A detailed description of the model is available upon request.

[x] The slump in consumer confidence after the recession in 1990-1991 may have been due in part to the first Bush administration's initial opposition to extending UI benefits for hundreds of thousands of workers. The administration ultimately acceded and benefits were extended, but only after confidence had waned and the fledgling recovery sputtered.

[xi] It should be noted that the economic bang-for-the-buck estimates measure the change in GDP one year after spending actually occurs; it says nothing about how long it may take to cut a check to a builder for a new school.

[xii] The cost of these tax law changes are not included as part of the cost of the stimulus plan.

The Economic Outlook and Options for Stimulus

Presented by:

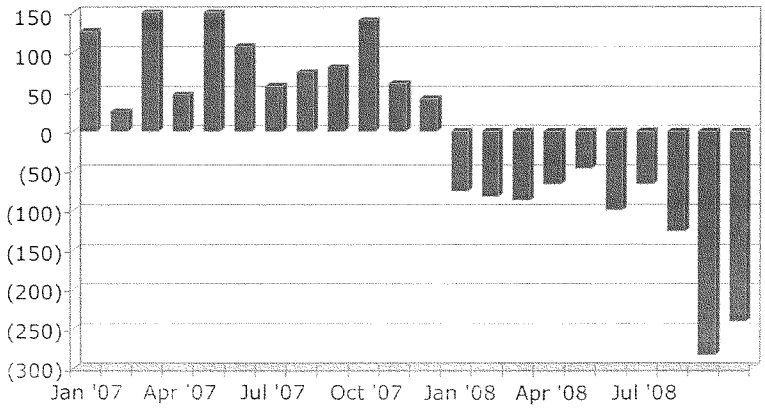
Mark M. Zandi,
Chief Economist

November 19, 2008

Moody's | Economy·com

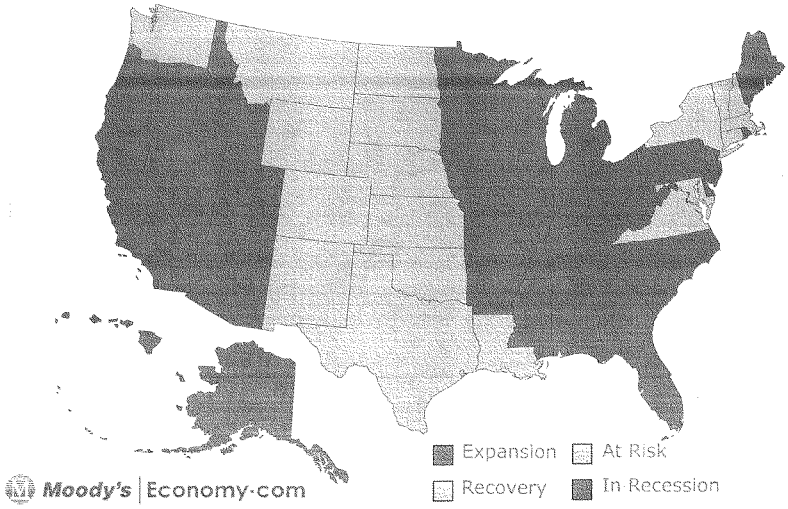
The Recession Intensifies...

Change in Payroll jobs, ths., Source: BLS



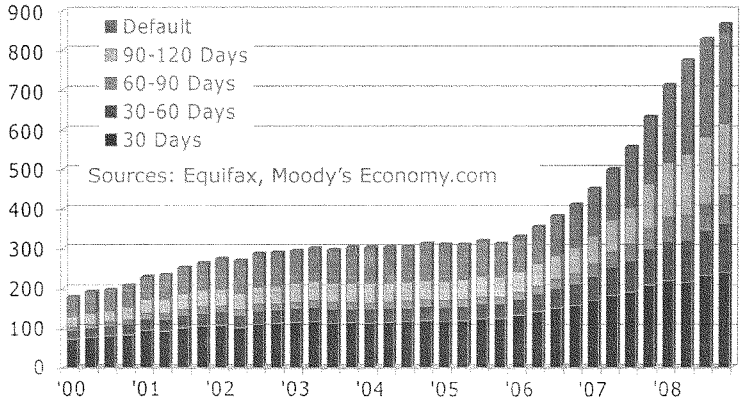
Moody's | Economy·com

...From Coast-to-Coast...



...As Households Buckle Under The Stress

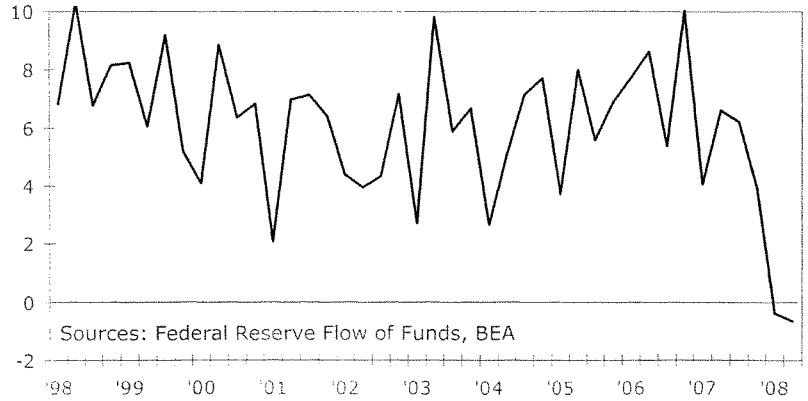
Household debt in delinquency or default, $ bil, annualized



Moody's | Economy·com

The Credit Spigot Has Closed...

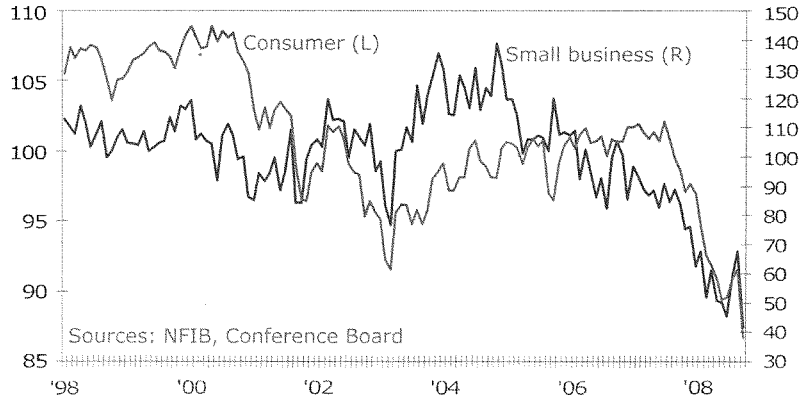
Real debt outstanding, annualized % change



Moody's | Economy.com

...Confidence Has Collapsed...

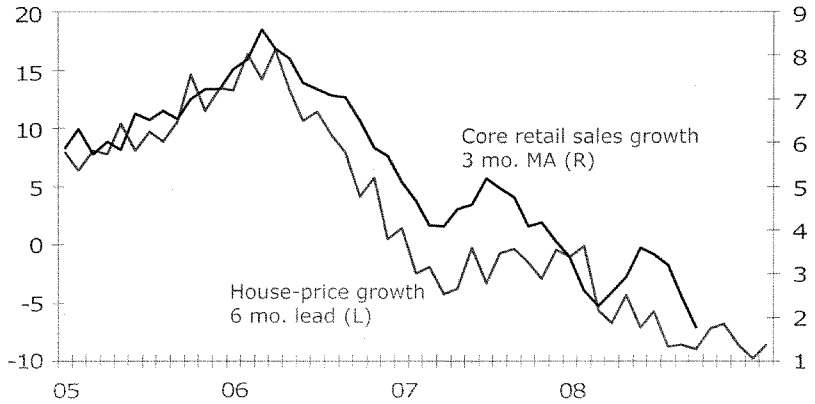
Indices based on consumer and business confidence surveys



Moody's | Economy.com

...And Consumers Batten Down the Hatches

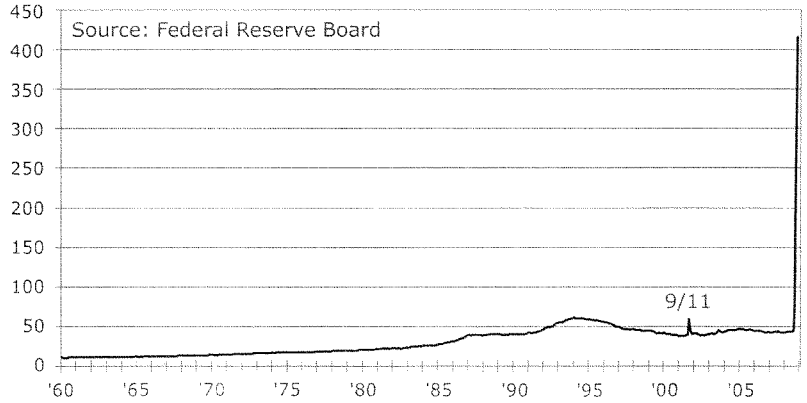
Sources: Census, Realtors



Moody's | Economy·com

Fed Pushes On The Proverbial String...

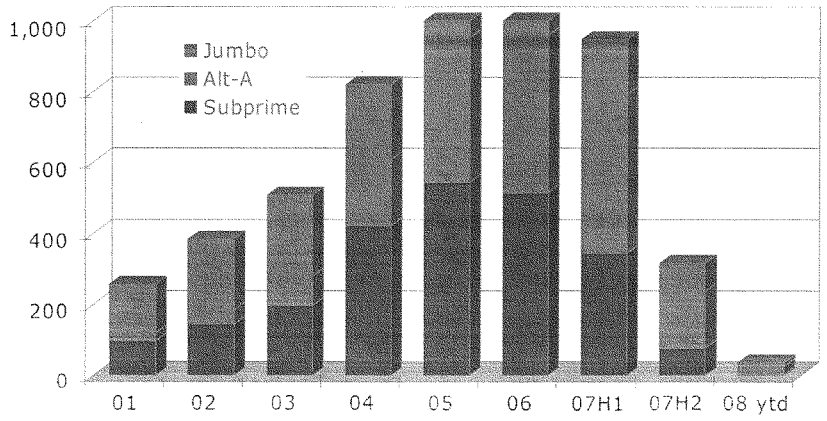
Bank reserves, $bil



Moody's | Economy·com

...As Credit Markets Are Frozen...

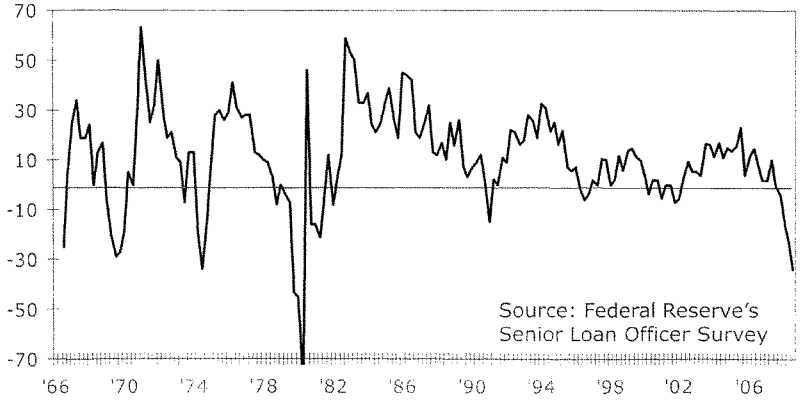
Bond issuance, $ bil, annualized, Source: Thompson



Moody's | Economy·com

...And Banks Fight to Survive

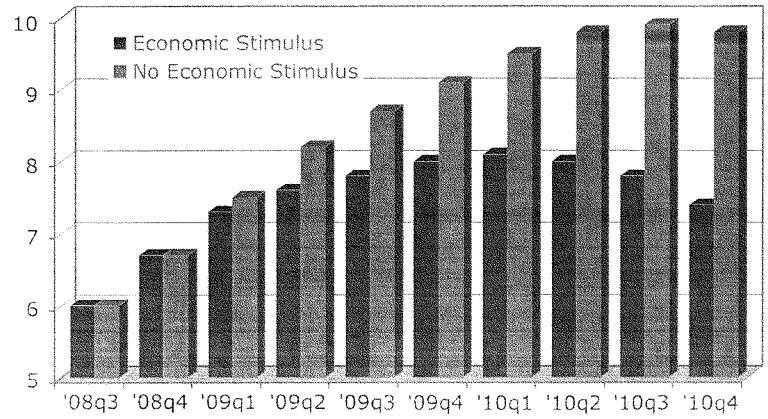
Net % of lenders willing to make a consumer loan



Moody's | Economy·com

Without Stimulus, Unemployment Rises to 10%

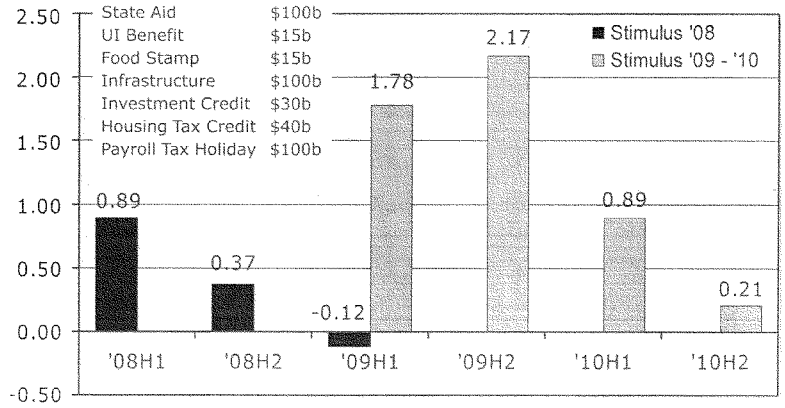
Unemployment rate, Sources; BLS, Moody's Economy.com



Moody's | Economy·com

$400 Billion Fiscal Stimulus in '09-'10

Contribution to real GDP growth, annualized % change



Moody's | Economy·com

www.economy.com

Moody's | Economy·com

Chairman CONRAD. Thank you, Dr. Zandi.
Dr. Johnson.

STATEMENT OF SIMON JOHNSON, SENIOR FELLOW, PETERSON INSTITUTE FOR INTERNATIONAL ECONOMICS

Mr. JOHNSON. Thank you. I would just like to supplement my written testimony by making three points, if I may. The first is about the unprecedented global nature of the financial and economic problems we are facing.

The second is the case for fiscal policy or fiscal stimulus despite the very high level of uncertainties we face about exactly what is happening in the economy, what will happen, and how fiscal policy will work.

And the third point is to argue strongly that we must not overdue the fiscal stimulus. Medium-term fiscal consolidation remains vitally important. If anything, this crisis reminds us that we must preserve our financial firepower for when we really need it, which is during a crisis like this.

But first, on the global point, I think in the remarks which have already been made by Senator Conrad and Senator Gregg and by Mr. Zandi, I think you very clearly laid out the picture in the United States. What I would like to stress is that this is not just a U.S. problem, as you know. It is not just a problem in the U.S. and in Europe and in other industrialized countries. It has now spread through various mechanisms to almost every country in the world, including major emerging markets and now poorer countries.

And I think in terms of the synchronization of the slow-down, and certainly the synchronization is contraction of bank lending and now, of course, it is a fall in the demand for credit around the world, this is unprecedented. I do not think we have ever seen in the history of modern capitalism anything like this at all, where every economy and every credit system around the world, pretty much at the same time, contracts.

Now, we don't know how far this goes. We don't know what levels of leverage the system will stabilize at. I am supportive of many, if not all, of the dramatic actions taken by the Federal Reserve and other leading central banks in this context. I am skeptical of their ability to stop this process or to—I think the market will find its own level of leverage, and this may come with a much bigger contraction in the global economy and global trade than we can now imagine.

I would, with a great deal of respect, disagree with the Secretary of the Treasury, Mr. Paulson. I do not think the TARP, Troubled Asset Relief Program, has been a success. I do not think the situation in the financial system is yet stabilized. And if you look at the current developments in major U.S. banks, the banks at the very core of the program, they are still regarded by the market, I think correctly, as having deep problems that are not fully resolved.

I think, just in that context, in passing, the meeting of the G–20 which was held last weekend in Washington achieved very little and potentially actually worsened the situation in ways I can elaborate on later if you're interested.

My second point is about fiscal policy. If we are facing such a dramatic slowdown around the world and we are in a situation which is really unchartered in terms of the dangers ahead, what are the right policy responses? And I think the answer is that you have to try everything that you can. I think this is the approach of Mr. Bernanke at the Federal Reserve. I think the amount of credit provided or underwritten by the Fed is now at record levels. We will see how much effect that has.

I completely agree with the remarks already made about the need to make progress on housing, on mortgage restructuring, and I think in terms of the flow of foreclosures, or foreclosed properties onto the market, we also need to make more progress.

But I also think that in this context, there are ways to use government spending wisely, both in the shorter term and in the longer term. I would actually stress not just the likely debt to the recession we are facing, but the fact that the recovery will almost certainly be quite slow without government action. I think we are looking at a problem not of 2 years, but more likely of three or 4 years, and that is just in the United States. I would expect the U.S. economy to recover more quickly than most of our trading partners around the world. So I don't think you should look to exports any time soon to pull us out of this.

I think in this context you could make a case for many of the forms of spending that have already been discussed. In the short term, direct aid to State and local governments makes a lot of sense. They are already contracting. That is where a lot of the job losses are occurring. You can extend unemployment benefits. I think there is a lot of agreement on that. Expand Food Stamp aid. And the loan modification for distressed home owners, I think also can give you relatively good value for the money.

I would also want to express some more positive words about tax rebates or temporary tax cuts. I don't think we should get too hung up on the idea that if consumers don't spend the money, somehow it is wasted. We need consumers to rebuild their balance sheets. That is important for them. It is very important for the financial system, too. So the money that is saved is also a contribution to the economic recovery and to a faster, more sustainable recovery.

In terms of longer-term spending, I support the ideas for both immediate spending on improving maintenance for infrastructure in the United States and projects that are ready to go. I think over a longer period of time, we can find more sensible uses of money on infrastructure.

I think there is also good use of money, again, over a longer period of time—I am not saying we rush the money out, it is to try to get a strong, sustained recovery here—job training programs. Student loans are, as you know, under tremendous pressure because of what is happening in the credit market, as are small business loans, and those are both worth serious consideration in the longer-term context.

And I also think that investment in alternative energy through various means typically used to support technology development is also a good long-term investment.

I think the amount of fiscal stimulus that you can justify in these terms, in terms of what you can spend wisely, and I would include

the tax cuts, if you want to put tax cuts in this overall number, is about 3 percent of GDP. That is a very large stimulus. I think there are some other proposals that are now being put forward.

Let me say, when we first put this forward, it was a large stimulus. Now, it seems more in the middle of the range that is being proposed, and I think some of the numbers being talked about, up to $800 billion, are too large. I think there are risks here. There is a risk of doing nothing. There are risks of doing too much. And there are no risk-free proposals. I think that the appeal of temporary spending and temporary tax cuts is that it can help us more quickly get back on the route to medium-term fiscal consolidation.

And my last point is that all the proposals put forward to try to deal with asset price bubbles in the future, in terms of monetary policy or in terms of regulation, I think are good proposals worth consideration. They are very unlikely to be successful. I think given the nature of the financial system that we have created in this country and around the world, unless something very unpleasant happens at a global level, which I am not expecting, I think we will keep that same financial system. That financial system will have crises. The only way to deal with crises is to have a very large amount of financial firepower available in the form of the U.S. Government balance sheet.

So you run a careful fiscal policy. You try and keep debt low. You avoid the temptation of overspending in good times so that in bad times, when things are very difficult, when the risks are really mounting, you have the financial firepower available for direct support of the financial system, for other forms of direct support, and for fiscal stimulus. Thank you very much.

[The prepared statement of Mr. Johnson follows:]

Testimony of Simon Johnson before the Senate Budget Committee, Hearing on *The Economic Outlook and Options for Stimulus*, November 19, 2008.[1]

Summary of Main Points

1) *The US is in a serious recession and faces a difficult recovery and slow growth for at least 2-3 years, due to the lasting effects of a crisis of confidence in and around the global credit system. It is hard to know where, when and how we will see an end to the current process of falling supply and demand for lending around the world.*
2) *Some sensible counter-cyclical policies are now being implemented in the US. These may be helpful for the recovery, but they cannot prevent the recession. Problems in other parts of the world are still emerging and most economic forecasts continue to be marked down.*
3) *In this environment, a total fiscal stimulus of around $450 billion (or roughly 3% of GDP) would be appropriate, with about half front-loaded in the first three quarters of 2009, when there will likely be recession, and the rest following over the next 8-12 quarters, during which otherwise growth will be slow. This time profile for increased spending would allow the money to be well spent.*
4) *In this context, some tax cuts would both help consumer spending and allow consumers to rebuild their balance sheets. If the decline in GDP proves sharper than expected, tax cuts can allow more front-loading of the stimulus. Money that is used to pay down debts is not wasted from the point of view of macroeconomic recovery.*
5) *A well-designed fiscal stimulus of this size will help keep unemployment down. Low energy and raw materials prices mean that the "value for money" in job creation through infrastructure spending (maintenance and new building) will be particularly high.*
6) *Medium-term fiscal consolidation must remain on the agenda. It is vital to retain a high level of global confidence in the US official balance sheet. We should aim for tighter budgets in economic upswings, as a way to preserve financial firepower for the crises of the future. This may, in fact, be the only effective way to deal with future kinds of unsustainable "bubbles" in asset prices.*

Today, it is abundantly clear that not only the United States but much of the world is sliding rapidly into recession. While the Treasury Department, Federal Reserve, and Congress have taken multiple steps to ensure the stability of the financial system, the next question is how to protect the real economy from a severe, prolonged recession and construct a basis for long-term growth and prosperity in the future.

My testimony includes three main sections: first, the roots and evolution of the current global financial crisis; second, the current situation; and third, my recommendations for the stimulus package itself.

---

[1] Simon Johnson is the Ronald Kurtz Professor of Entrepreneurship at MIT Sloan School of Management and a senior fellow at the Peterson Institute for International Economics: sjohnson@mit.edu and sjohnson@petersoninstitute.org. He is also co-founder of http://BaselineScenario.com, a website that tracks the global economic crisis and evaluates alternative policy proposals as they develop.

THE GLOBAL FINANCIAL CRISIS

Roots of the crisis

For at least the last year and a half, as banks took successive writedowns related to deteriorating mortgage-backed securities, the conventional wisdom was that we were facing a crisis of bank solvency triggered by falling housing prices and magnified by leverage. However, falling housing prices and high leverage alone would not necessarily have created a serious recession. It was the translation of solvency concerns into short-term liquidity concerns that brought on a panic in the financial system, which in turn caused the credit crisis we are still experiencing today.

The problems in the U.S. housing market were not themselves big enough to generate the current financial crisis. America's housing stock, at its peak, was estimated to be worth $23 trillion. A 25% decline in the value of housing would generate a paper loss of $5.75 trillion. With an estimated 1-3% of housing wealth gains going into consumption, this could generate a $60-180 billion reduction in total consumption, or only 0.4-1.3% of US GDP.

Leverage did increase the riskiness of the system, but would not necessarily turn a housing downturn into a global financial crisis. Although leverage magnifies falls in asset values that might threaten the solvency of specific financial institutions, what we saw recently was a collapse in short-term confidence in the entire financial system. Excessive leverage can be resolved in one of two ways. The first is an orderly reduction in credit through decisions by institutions and individuals to reduce borrowing, cut lending, and raise underlying capital; this can occur gradually without much harm to the. The second is when creditors make abrupt decisions to withdraw funds, forcing borrowers to scramble to raise funds and leading to major, abrupt changes in liquidity and asset prices. These credit panics can be self-fulfilling; fears that assets will fall in value can lead directly to falls in their value.

A crisis of confidence

We have seen a similar crisis at least once in recent times: the crisis that hit emerging markets in 1997 and 1998. For countries then, read banks (or markets) today. In both cases, a crisis of confidence among short-term creditors caused them to pull out their money, leaving institutions with illiquid long-term assets in the lurch.

This emerging market crisis started in June 1997 in Thailand, where a speculative attack on the currency caused a devaluation, creating fears that large foreign currency debt in the private sector would lead to bankruptcies and recession. Investors almost instantly withdrew funds and cut off credit to Malaysia, Indonesia and the Philippines under the assumption that they were guilty by proximity. All these countries lost access to foreign credit and saw runs on their reserves. Their currencies fell sharply and their creditors suffered major losses. From there, the contagion spread for no apparent reason to South Korea, then to Russia, and then to Brazil.

In each case, the next country affected had little exposure to previous countries. Nevertheless, creditors lost confidence that they could get their principal back and rushed to get out at the same time. In such an environment, any institution that borrows short and lends long is vulnerable to an attack of this kind: if credit is cut off it will be unable to maintain their existing activities. The decision of credit markets became self-fulfilling, and policy makers around the world seemed incapable of stopping these waves.

The acute stage of the crisis

The evolution of the current financial crisis is remarkably similar to the emerging markets crisis of a decade ago. America's crisis started with creditors fleeing from sub-prime debt in summer 2007. As default rates rose, investment-grade debt - often built out of sub-prime debt - faced large losses. The exodus of creditors caused mortgage finance, home building, and a few hedge funds to collapse.

The second stage began with the Bear Stearns crisis in March 2008 and extended through the bailout of Fannie Mae and Freddie Mac. As investment banks evolved into proprietary trading houses with large blocks of illiquid securities on their books, they became dependent on the ability to roll over their short-term loans. Given sufficient panic, it can become impossible to roll over those loans, as Bear Stearns learned. However, with Bear Stearns and latter with Fannie and Freddie, the Federal Reserve and Treasury made sure to protect creditors, encouraging them to continue lending to large financial institutions.

This changed on September 15 and 16 with the failure of Lehman and the "rescue" of AIG, which saw a dramatic and damaging reversal of policy. Lehman succumbed to a crisis in confidence that made it impossible to secure short-term funding. This time, however, the Fed let Lehman go bankrupt, largely wiping out creditors. AIG came under threat because of its exposure to mortgage-backed securities through credit default swaps. As with Lehman, the Fed chose not to protect creditors; because the $85 billion loan was senior to existing creditors, senior debt was left trading at a 40% loss.

Whatever the reasons for this change in policy, the implications for creditors and bond investors were clear: RUN from all entities that might fail, even if they appear solvent. As in the emerging markets crisis of a decade ago, anyone who needed access to the credit markets to survive might lose that access at any time. As a result, creditors and uninsured depositors at all risky institutions pulled their funds - shifting deposits to Treasuries, moving prime brokerage accounts to the safest institutions, and cashing out of securities arranged with any risky institutions. Washington Mutual and Wachovia vanished, and even Morgan Stanley and Goldman Sachs needed emergency capital. Banks stopped lending to each other or to their corporate clients and lent to the US government instead. The collapse of one money market fund and the pending collapse of more forced the government to insure money market funds.

The credit market shock waves spread quickly throughout the world. In Europe, interbank loan rates and EURIBOR rates shot up, and banks from Bradford & Bingley to Fortis

were nationalized. From late September, credit markets around the world were paralyzed by the fear that any leveraged financial institution might fail due to a lack of short-term credit. Self-fulfilling collapses can dominate credit markets during these periods of extreme lack of confidence.

The response

One way to end a crisis in confidence is to put a large balance sheet behind each entity that appears to be at risk, making it clear to creditors that they can once again safely lend to those counterparties without risk. This should restore confidence and limit the impact on the real economy. The major strength of the U.S. is its balance sheet: the unmatched degree of confidence it enjoys in the global economy.

However, governmental responses to the crisis were fitful, poorly planned, and abysmally presented to the public. The U.S., to its credit, was the first to act, while European countries boasted they would be little affected. But the rapid shift from insisting that the system was fundamentally sound to a panicked request for $700 billion was greeted coldly on Capitol Hill and spooked the public.

The initial Paulson Plan was designed to increase confidence in financial institutions by transferring their problematic mortgage-backed securities to the federal government's balance sheet. The plan had many problems, ranging from uncertainty over pricing to questions about whether it would be sufficient. On September 29, I recommended passing the plan and supplementing it with four additional measures, including unlimited deposit insurance and an equity injection program for financial institutions. (My views throughout the crisis were published at http://BaselineScenario.com and in various other media outlets.)

After the Paulson Plan was passed on October 3, it was quickly overtaken by events. The UK and then every major European country announced a bank recapitalization program. On October 14, the US followed suit with a bank recapitalization program, unlimited deposit insurance (for non-interest-bearing accounts), and guarantees of new senior debt. Only then was enough financial force applied for the interbank lending markets to begin to ease, with LIBOR finally falling and Treasury yields rising, although they are still a long way from historical levels.

Global dimensions

Although the US and Europe have grabbed most of the headlines, the current crisis has taken a toll worldwide, particularly in emerging markets. Compared to the U.S. and select other wealthy nations, most countries lack the resources to restore confidence in their financial systems, must issue debt in foreign currencies, and have little control over their exchange rates.

Highly leveraged countries, such as Iceland, are vulnerable to the flight of capital. Like Latin America in the 1980s, or emerging markets after 1997-98, the withdrawal of credit

after a boom can lead to steep recessions and major internal disruptions. Countries that got rich during the commodities boom are also highly vulnerable to a global recession. Extremely poor countries will suffer from reductions in foreign aid by wealthy countries. Even China is seeing a significant slowdown in growth as the global recession depresses its export markets.

The global recession reduces our ability to trade, limiting one potential source of growth. In addition, the flight to quality has driven up the value of the dollar, making it even harder for U.S. companies to export goods and services. In addition, economic distress overseas can create political instability in important countries such as Pakistan, which recently agreed on terms of an IMF bailout. However, the IMF lacks the capacity to protect the global economy as a whole.

THE CURRENT SITUATION

The financial sector

Today, the financial panic has eased, and the successive collapse of many large banks in the U.S. and Europe no longer appears imminent. However, it is too soon to declare that the crisis has passed, or that the bank bailout program has succeeded. As the recession deepens, the prospects for all kinds of debt - not just sub-prime mortgages, but prime mortgages, auto loans, credit cards, corporate loans, corporate bonds, etc. - are only getting worse. As a result, there is no end in sight to the write-downs that are taking their toll on banks' balance sheets. Credit default swap spreads on major U.S. financial institutions have risen significantly since the middle of October, indicating growing investor nervousness. There is a very real possibility that many of the banks who received capital injections from Treasury will need additional capital - most likely from the same source - in order to remain solvent. It is possible that Treasury will need to be more draconian about deciding who will receive capital and who will not; an attempt to protect every bank will likely increase confidence in no banks.

Although short-term interbank lending has partially resumed, lending to the real economy, either as bank loans or as corporate or municipal bonds, remains highly constricted. One reason is that banks that are worried about their own solvency are more likely to use new capital to strengthen their balance sheets than to increase lending. Another is that, in any correction like the one we are seeing, underwriting standards tend to tighten rapidly. A third is that banks have been given little incentive (or pressure) to lend, other than exhortations by policymakers.

In addition, the health of non-bank financial institutions remains an open question in the U.S. Insurance companies and quasi-financial companies such as GMAC and GE are attempting to qualify for capital from Treasury. Hedge funds, of course, remain largely invisible, yet forced selling by hedge funds is suspected of contributing to asset price volatility.

The real economy in the U.S.

The poor health of the financial system is one but not the only cause of the severe recession in the overall economy. Before the severe phase of the crisis began on September 15, the U.S. was already facing an economic slowdown. The fall in housing prices and the slow fall in stock markets reduced household wealth, constraining consumer spending. A month of continuous panic from the media and another month of unmitigated bad news have helped push consumer confidence to the lowest levels seen in decades and undoubtedly depressed economic activity significantly. Very real layoffs, beginning in the financial sector but spreading to virtually all parts of the economy, are obviously having a major effect as well. Companies with limited access to credit are paying down debt and reducing spending and investment plans. State and municipal governments are cutting spending drastically as their projected tax revenues evaporate. At present, many forecasters project the most severe recession in the U.S. since at least 1981-82, lasting through at least the first half of 2009.

One of the major stories in the U.S. economy is, of course, the plight of the auto manufacturers and of GM in particular. Analysts and GM management agree that the company is likely to be unable to pay its bills within the next few months, prompting widespread calls for a bailout. GM and its allies insist that the company will be unable to survive bankruptcy and that a government loan will be necessary to protect millions of jobs at GM, its suppliers, their suppliers, dealers, and so on.

Perhaps even more significantly, little progress has been made on slowing the fall in housing prices and rise in foreclosures that feed off each other in a vicious cycle. Various loan modification programs have been announced by Bank of America, JPMorgan, Citigroup, Fannie Mae/Freddie Mac, and the FDIC (for IndyMac), but these have had little effect so far, and most only target a small part of the overall problem. The new, overall plan proposed by the FDIC is promising, although some issues may need to be addressed (such as how it will handle the problem of securitized loan trusts). But at present, the pattern is one of increasing defaults, increasing foreclosure sales, and falling prices.

Unexpected distress in Europe

Unfortunately, there is little hope that we can export our way out of our problems. The most recent reports indicate a much sharper downturn in Europe than was expected even a few weeks ago, with the U.K. and some EU countries already in recession in the third quarter of this year. Even wealthy European countries and members of the Eurozone are threatened by two important developments, in addition to the acute credit crisis that has been with us since the middle of September.

First, many European countries' banking sectors have imported serious financial problems from emerging market countries. In recent years, much of the investment in Eastern Europe and Latin America has come from European banks, which are now seeing their asset values plummet.

Second, and potentially more dangerously, worries are mounting that even members of the Eurozone might default on their sovereign debts. By acting to guarantee the solvency of their domestic banks, European countries have implicitly taken the risk of default onto themselves. As the recession deepens, those banks may fall further and further into the red, requiring their government backers to provide more and more capital. Because, in some cases, domestic bank assets are significantly larger than GDP, there is risk that some governments may simply be unable to bail out their financial sectors. Investor nervousness over this prospect can be seen in the prices of credit default swaps on sovereign debt. The implied risk of default for countries such as Ireland, Italy and Greece is rising; Greece is considered more in danger of default even than in early October. If this continues for too long, one or more countries may decide to abandon the Euro, causing major damage to the European and by extension the global economy.

Emerging markets getting worse and worse

In just the last week, the outlook for emerging markets has gotten significantly worse. As the wealthiest nations protect their banking sectors, investors and lenders will be less likely to put their money in countries perceived as risky. The psychology of fear has already taken over as creditors try to guess which country will be next. Unless a country has a sufficient balance sheet and a very large amount of reserves, it may get drawn into a pattern of selective defaults and large devaluations.

So far, the IMF has stepped in with aid packages to Iceland, Ukraine, Hungary, and now Pakistan, and has also created a new short-term credit facility for "healthier" emerging markets such as South Korea and Mexico. In the process, however, the IMF has committed a majority of its available funds, which were only about $250 billion to begin with, and there are no obvious actors with the scale to protect a large portion of the global economy. Investors expect multiple countries across Eastern Europe to default, judging by the price of credit default swaps on those countries' debt. And while IMF assistance can reduce the risk of a government default, it cannot solve the severe problems in the real economy. In Ukraine, for example, industrial production in October was 20% lower than in October 2007.

Falling commodity prices due to the coming recession will also hurt many exporting countries. Even Russia, with its large foreign currency reserves (and vast oil and gas reserves) may have a significant mismatch problem between short term liabilities and longer term assets. This is complicated further by large private sector debt in foreign currency. Russia has already expended a significant portion of its foreign currency reserves in a losing battle to protect the ruble. In addition, its real economy appears extremely shaky. In one sign, Russia's second-largest coal producer reported that its Q4 sales will be only one-third its original plan, and its steelmaker customers are only paying 21% of the value of their shipments.

China, once thought to be largely insulated from the global financial crisis, is also feeling the pain. With some economists projecting that annualized growth could fall below 6% this quarter (from a rate of 11-12% in the past two years), the government stepped in with

a massive stimulus package ($586 billion over two years, although some of that may already have been planned). Given the major international linkages in the global economy, the recession is crippling growth everywhere.

Summary of current situation

In the United States, we have been aware of an impending economic slowdown for over a year. We will never know how pronounced the slowdown would have been in the absence of the acute credit crisis that began in mid-September. That crisis has triggered an ever-expanding series of impacts on the global economy that have plunged our economy into a serious recession. The constriction in the availability of credit, the widespread fear generated by recent events, and the recent waves of layoffs have all depressed economic activity. The financial crisis has triggered severe economic problems for our trading partners and in emerging markets throughout the world.

We are clearly in uncharted territory. So far, our most pedigreed economists and most experienced policy makers have failed to anticipate the serial effects that the crisis has had. This means that the economic crisis could become much worse than we currently expect. It also means that it could be less bad than we expect. One problem is simply that we only have data through September or October, which were two of the most unusual months in our nation's economic history. Business and consumer behavior in November - when we all know that the economy is suffering, but we are not constantly barraged by panic - could be a better indicator of how far we have to go to restore the economy to health. Another problem is that we still cannot see many of the potential pitfalls in the financial sector, hidden as they are in hedge funds or off-balance-sheet vehicles. In any case, however, we need to be prepared to act as necessary to stimulate the economy and cushion the impact of the recession on the American people.

ECONOMIC STIMULUS

There are a number of steps that the US can take to address the many problems facing the global economy. These include continued action to recapitalize financial institutions under the Emergency Economic Stabilization Act, low interest rates, liquidity measures by the Federal Reserve, actions (coordinated with other G7 countries) to rein in the currency crisis, direct intervention in the housing market, and new forms of financial regulation, both domestic and international. The Federal Reserve must act decisively to forestall any risk of deflation (falling prices and wages). For today, however, the question is how best to stimulate the economy to cushion the impact of the recession and lay the foundation for future long-term growth.

Stimulus objectives

Before deciding these specific questions, however, we need to define the general objectives of the stimulus. The US economy is going through a massive de-leveraging process that is causing significant declines in asset values - first in real estate markets, now in securities markets - that will reduce the purchasing power of consumers for years

to come. Attempting to prop up those asset values simply by increasing purchasing power is likely to fail - the amount of money needed would be huge - and would likely only extend the de-leveraging process. While targeted tax rebates could play a role in the stimulus, simply asking the American consumer to spend his or her way out of this recession is unlikely to succeed.

So what are we trying to achieve? I think there are four main objectives:

1. Reduce the depth and severity of the recession. The constriction in lending and widespread pessimism among both consumers and businesses risk producing a sharp downturn that pushes asset values far below their sustainable levels. A classic economic stimulus, by encouraging economic activity, can counteract this pessimism and limit the damage. One condition of meeting this objective is that measures should be designed to flow into the economy quickly.
2. Help those people who will be hurt most by the recession. One can argue that this is not, strictly speaking, necessary to economic recovery, but I believe it remains an obligation of our government and society to limit the human misery that will be caused by a recession.
3. Invest in America's long-term growth and productivity. The stimulus plan should encourage behavior that will increase the long-term economic prospects for the country. A simplistic way of putting this is that given the choice, we would rather see investments in infrastructure than in consumption of flat-screen TVs. In this context, we should bear in mind is that this is likely to be a relatively long recession, where economic growth may not return to target levels for 24 months or longer. Therefore, stimulus measures that might not be considered for a shorter recession should be put on the table.
4. Ensure the long-term fiscal health of the government. Today, we are benefiting from the United States' unmatched ability to borrow money. However, it is possible that at some point in the future the size of our accumulated debt - and the size of the known future obligations in Social Security and Medicare - could make it more difficult to issue Treasury bonds at low rates. Now is not the time to worry about the size of the deficit in the short term, but we should make sure that the deficit can be reduced once the economy returns to sustainable growth.

So, with these considerations in mind, what should the stimulus package include?

I divide my recommended stimulus programs into two categories that, for want of a better term, I call short-term and long-term. Short-term programs are those intended to feed money into the economy quickly and in a form that will have a direct impact on economic activity; that is, they should encourage spending rather than saving. Long-term programs are those that may not boost economic growth within one or two quarters, but will help the economy grow out of the recession and will also help increase long-term productivity growth in the economy.

Short-term programs

Several of the programs I recommend are those favored by other economists and commentators and with which the Committee is already familiar, so I will not describe them in exhaustive detail.

1. Direct aid to state and local governments

This direct aid is desirable for two reasons. First, because it replaces money that state and local governments have been forced to cut from their budgets, it can have a very rapid effect, without the need to design new programs. Second, the money will go to programs that these governments have already decided are important and worth funding, minimizing the risk that the stimulus will be wasted on inappropriate ends. Not only did many states cut budgets for the current fiscal year with the anticipation of reduced tax revenues, but several states have enacted midyear budget cuts as their expectations have deteriorated. According to the Center on Budget and Policy Priorities, states closed $48 billion in shortfalls in enacting their current (fiscal year 2009) budgets, and so far another $12 billion in gaps have opened up since the year began (generally in July). The CBPP is also forecasting shortfalls in the $100 billion range for the following year.

2. Extended unemployment benefits

Congress already extended unemployment benefits by 13 weeks in July 2008, but that measure will currently expire in March 2009. This provision should be extended past March 2009, and other means of expanding unemployment coverage should be considered, such as further extensions based on state-by-state unemployment rates. Extending unemployment benefits has a high "bang for buck" ratio, because needy people are more likely to spend each incremental dollar. According to testimony by Mark Zandi of Moody's Economy.com before the House Committee on Small Business in July, each dollar in extended unemployment benefits translates into $1.64 in incremental GDP over the following twelve months. Finally, this program helps some of the people who will be most sorely affected by the economic downturn, in most cases through no fault of their own.

3. Expanded food stamp aid

Expanding food stamps has many of the same beneficial characteristics as extending unemployment benefits. Because food stamps cannot be put in the bank or used to pay down debt, they tend to contribute to economic activity quickly. According to Mark Zandi's testimony, each dollar in expanded food stamp aid contributes $1.73 to incremental GDP.

4. Loan modifications for distressed homeowners

To these ideas I would add money for relief to distressed homeowners in the form of government-sponsored loan modifications. This may not be in the fiscal stimulus package

per se, but it should not be far behind. The current FDIC proposal to partially guarantee modified loans as an incentive for lenders and servicers to make those modifications is promising. Like any guarantee, however, it raises the possibility - in this case, given the number of loans involved, the virtual certainty - that the government may lose money. This would be an appropriate usage of money as part of the stimulus package, as this program should help prevent housing prices from crashing far below their long-term values, and therefore prevent a further depletion of households' spending power.

Even with the best possible loan modification program in place, a significant number of restructured mortgages will end up in default. We probably also need a role for government in managing the flow of foreclosed properties onto the market.

5. Tax rebates or temporary tax cuts

Targeted tax rebates or temporary tax cuts could play a role in the short-term economic stimulus. The benefit of tax rebates is that they can be distributed quickly and enable households to expand consumption when other sources of discretionary income are not available. The downside of tax rebates is that they may be saved, reducing their impact on current GDP growth. There is debate among economists over the extent to which the tax rebates earlier this year were saved as opposed to spent. However, Mark Zandi's research has shown that each dollar in (refundable) tax rebates translates into $1.26 in economic activity, indicating that they remain a meaningful stimulus tool. In addition, using tax rebates to pay down debt improves household balance sheets and helps promote longer-term macroeconomic recovery. In any case, in order to increase the potential impact of tax rebates, they should be focused on the lower and middle classes and phased out at higher income levels.

In addition to or instead of simple rebate checks, a number of alternatives could similarly increase spending in the short term while potentially targeting other policy goals. Possibilities include tax credits for specific types of "desirable" spending (such as automobiles, or just fuel-efficient automobiles); increased direct aid for low-income people to pay for heating oil, natural gas, electricity, or other utilities; a temporary reduction in the payroll tax, either across the board or for specific income bands; or a temporary reduction in marginal tax rates.

Long-term programs

In addition, however, a number of other stimulus programs should be considered, for two reasons. First, given the depth of the expected recession, the programs listed above may to be too small to have the desired impact. Second, the expected length of the recession provides an unusual opportunity: an opportunity to invest in our economic future while also combating the recession.

For these reasons, the following initiatives should also be on the table:

1. Investment in basic infrastructure, such as highways and bridges. In order to accelerate the economic impact, money could initially be put into maintenance

projects, but new construction projects should not be ruled out. Right now, the depressed prices of energy and raw materials mean that the "value for money" of infrastructure spending will be particularly high.

2. Job retraining programs or grants. The recession will accelerate some of the long-term changes in the American economy; the proposed merger of GM and Chrysler is just one sign of this trend. Tens of thousands of people will need to develop new skills.
3. Expanded student loans. Even before the latest phase of the financial crisis, smaller lenders were exiting the student loan market, especially for community college students, and there is a risk that this trend could reduce the availability of college educations for lower-income students. Student loans will go directly toward paying for tuition and other costs, so they should have a direct impact on the economy.
4. Expanded small business loans. The credit crisis has not only seen a reduction in the availability of credit, but also an increase in the price of credit for small businesses. Government programs to guarantee small business loans or otherwise increase the availability of credit should have a nearly-direct impact on the economy. The programs could be designed to discourage companies from getting new loans to pay down existing loans.
5. Investment in alternative energy, through tax incentives, direct grants, or other means. Someday in the next couple years the price of oil will start increasing again; despite its recent fall, long-term projections of the amount of oil in the world have not changed. Moving our economy away off of oil and onto alternative energy sources will not only protect us from inflation in the future, but will give our companies a new avenue for long-term growth.

I am too far from being an expert on all of these topics to go into them in great detail. I know that several of them have been considered by members of Congress. My point is that given the amount of fiscal force that will need to be deployed, and the length of time over which it will need to be deployed, it is appropriate to consider measures that will both stimulate the economy and invest in our long-term future.

Size of stimulus

In his testimony to the House Budget Committee last month, Martin Baily proposed a stimulus of $200 to $300 billion. His recommendation was based on a range of forecasts about the severity of the recession. As this is not an exact science, I will follow a similar approach with slightly different results.

Baily used two forecasts: the Blue Chip consensus forecast and a more pessimistic scenario that he defined. The Blue Chip forecast included three quarters of contraction, with a trough of -1.1% GDP growth (annual rate) in Q4 2008, with a relatively rapid return to healthy growth (+2.2% in the first post-recession quarter). His pessimistic forecast was for five quarters of recession, with a trough of -4.0% GDP growth in Q4 2008 and Q1 2009.

There are three other forecasts I will mention to give a range of the expected outcomes:

- Goldman Sachs in early October forecast zero growth in Q3 2008, contraction in Q4 and Q1 (trough of -2.0%), and zero growth in Q2 2009.
- The October IMF forecast is for two quarters of recession, followed by one quarter of zero growth.
- JPMorgan forecast 3 quarters of contraction, with a trough of -1.6% and 12 quarters of slow growth.

However, the main issue with any macroeconomic forecast is that, in this environment, it risks being out of date the day after it is made. Every week seems to bring additional bad news in both the U.S. and global economies; the impending collapse of GM and perhaps the rest of the auto industry is only the latest doomsday scenario facing us. As a result, I believe there is a large likelihood that all of these forecasts will later be revised downward.

For planning purposes, then, we should think about a world in which the U.S. recession will last 4-5 quarters, with a trough at negative 2-3% GDP growth (annual rate), followed by 8-12 quarters of slow growth.

Baily's method assumes that $1 in spending will contribute $1.50 to GDP, with the $0.50 in follow-on effects spread over several quarters. Based on this assumption, since US GDP is approximately $3.5 trillion per quarter, $35 billion in spending in a given quarter will contribute 1.0% to GDP growth in that quarter, and small amounts thereafter. By matching expenditures on stimulus to the forecast GDP growth figures for each quarter, he concludes that $200-300 billion will be appropriate to cushion the recession and restore the economy to growth.

I would suggest two modifications to this approach. First, I think it is optimistic to expect $1 in immediate impact for every $1 in the stimulus program. There is evidence that a significant proportion of this spring's tax rebates did not end up contributing to spending, and while the measures outlined above are more likely than tax rebates to result in direct increases in economic activity, it would be a mistake to overestimate the effectiveness of any macroeconomic intervention. As a result, I believe it more conservative to plan on something like $0.90 in immediate impact and $0.50 in follow-on impact.

This implies that, for the 2-3 quarters of recession that remain to be affected (assuming there is nothing we can do about Q3 and Q4 this year), approximately $70 billion in stimulus expenditures per quarter may be called for, for a total of roughly $220 billion. The amount of stimulus should decline over the quarters due to follow-on effects, but a major issue is how to spend large sums early in 2009 while ensuring that the money is used well and has a high impact on GDP growth. If the recession is more severe than expected, then more of the stimulus should be front-loaded, which may require tax rebates or temporary tax cuts simply in order to get the money out fast enough.

Second, I would pay particular attention to the 8-12 quarters of prolonged slow growth. If we want to increase economic growth by an average of 0.5-1% (annual rate) in each of

these quarters, this would imply approximately $25 billion in stimulus per quarter, or roughly $250 billion over the entire period.

Added together, this yields a total stimulus package of around $450 billion, or about 3% of GDP, spread over about 3-4 years. It also implies a way to time the short-term and long-term programs described above. Short-term programs can be implemented immediately to inject spending into the economy quickly. Long-term programs, such as infrastructure grants or alternative energy programs, should be announced and implemented quickly, but can take a longer time to bear fruit.

Fiscal consolidation

Again, this is not the year to be worrying about the size of the budget deficit. Faced with the most severe recession in almost thirty years - and perhaps in seventy years - the overriding priority should be to restore the economy to sustainable growth. The financial crisis has taken so long to get under control - and is still not fully under control - in part because of reluctance by policymakers to use sufficient financial force early enough. We face a similar danger when it comes to the recession in the real economy. In addition, we currently have the luxury of being able to borrow money at reasonable prices.

However, there is no such thing as a free lunch. If the national debt as a percentage of GDP continues to grow at the rate of the last several months, at some point the rest of the world will become more reluctant to lend us money. This will show up as an increase in interest rates, which will increase the proportion of the budget that will have to be dedicated to debt servicing; in a worst case scenario, lenders might insist that we borrow money in other currencies (although the most likely candidate, the euro, has seen its share of problems recently). Credit default swap spreads on U.S. sovereign debt, while still low, have been rising in recent months as investors wonder what impact all of our new liabilities will have.

The solution, on a high level, is to have counter-cyclical fiscal policy. Just as we should be increasing spending or possibly reducing taxes right now to combat the recession, we should reduce spending or increase taxes once the economy returns to a reasonable growth rate. This will be necessary not only to reduce the national debt burden, but also to build up financial firepower - in the form of both cash on hand and additional borrowing capacity - to deal with the crises of the future. This is one reason why tax rebates or tax cuts should be explicitly temporary (although temporary tax cuts have a way of becoming permanent, this should be resisted). It is also why new spending programs, such as infrastructure spending, should be structured to be phased out over several years. It will be especially important to restore the government budget to a position of long-term sustainability - deficit in recessions, surplus during growth - before we have to face the additional obligations currently built into the Social Security and Medicare programs.

Chairman CONRAD. Thank you.
Dr. Taylor.

STATEMENT OF JOHN B. TAYLOR, MARY AND ROBERT RAYMOND PROFESSOR OF ECONOMICS, STANFORD UNIVERSITY, AND SENIOR FELLOW, HOOVER INSTITUTION

Mr. TAYLOR. Thank you, Mr. Chairman, and thanks to you and Senator Gregg and other members of the committee for giving me the opportunity to be here to talk about the economic situation and the need for a stimulus.

I agree, these are tough economic times. We are in a recession. Last quarter had negative growth and this quarter will most likely have the number of minus-three percent that you put up, Mr. Chairman. I think the recession will be—already—is longer and deeper than the previous two recessions we had in the United States and most likely more along the lines of the recessions we had in the 1970's and the early 1980's in terms of the magnitude and length.

I think the source of this really goes back to the boom and bust in housing. I will come back to that in a minute. There was a period of time where we had excessive stimulus, if you like, from the monetary side. It led to a run-up in housing prices that was unprecedented, spread around the world, and now the resulting bust has led to many foreclosures. People are underwater; the securities were put together into derivatives that were sold to banks and others and that has caused the financial crisis that we are facing in the United States and the rest of the world.

So the story is pretty clear about how we got here, and now getting out. Clearly a good topic for discussion is how we get out of this. I think the first thing I would look at if I were you, in terms of considering a second stimulus, is to look as carefully as possible at the first stimulus, if you like, the Economic Stimulus Act of 1980.

I have had a chance to look at this a bit, and I brought a chart. I am going to only have one chart in my presentation. It is in my testimony. I don't know if it is in front of the Senators. But it is simply just going back to the major part of the Stimulus Act, and that was, as Senator Gregg mentioned, the rebate checks or direct deposits into people's accounts.

The idea, you recall, was that by giving people more income, more disposable income, they would spend more. It would give a boost to consumption demand, and that would boost aggregate demand which in turn would jump-start the economy. That is the logic.

Well, we can look at what happened with this chart. As you can see, the top line is—well, it is on the chart here, so thank you. The top line is what we call disposable personal income, and this is the amount of money in the aggregate that people have to spend after the government takes taxes and gives money back in the form of transfers.

You can see there is a big blip in that line. It started in May when the rebate checks were sent out, or money was deposited in people's accounts. It stayed high in June, July, and now it is basi-

cally back to the previous trend it was. So that is basically the stimulus package right there, at least on the consumer side.

Now, again, the purpose was to stimulate consumption so the economy would get a jump-start. The lower line is what we call personal consumption expenditures. It is the total amount of consumption by the same people in the aggregate that were getting the rebate checks. As you can see, it is very hard to see that there was any impact of this stimulus on what it was advertised to affect. It seems to me that is something to consider seriously when you think about a second stimulus package.

You might think it is surprising this happened. Actually, I think this is what economic theory will tell you would happen. Economic theory has something called the permanent income model developed by Milton Friedman, or the lifecycle hypothesis developed by Franco Modigliani at MIT, and these are the ideas that people's consumption behavior is largely influenced by their views about their permanent income. It is a famous and well-researched idea.

It seems to me that that is what you are seeing in this picture, exactly what you'd expect, a temporary burst of income. People save almost all of it in this case. We can debate whether maybe it was offsetting some other things, like the high energy prices, but nonetheless, it seems to me that this is a verification of that theory.

Now, it is because of that view of temporary rebates that the idea of stimulus, countercyclical fiscal stimulus, actually fell by the wayside until roughly 2000, 2002. I have some quotes in my testimony from distinguished economists who said there was a consensus that this approach doesn't work. I think the consensus broke down as, of course, evidenced by lots of testimony you heard earlier this year when you were considering the economic stimulus package. I think it broke down because in 2001, there were checks sent to people and that did seem to have some impact. But remember, that was the first installment on a longer-term multi-year tax cut. So effectively, that was viewed as permanent by so many people who were getting those checks. Logically, that is what they would think. So in that sense, that is not surprising that had more impact.

So in my last minute and a half, what are the lessons from this? It seems to me the lessons are pretty clear. We had in many of the debates last January-February the mantra that packages should be temporary, targeted, and timely. It seems to me we should think about changing that mantra, those principles, when you think about this next package. I like to stick with the alliteration, since that seems to be catchy, but I will choose a different alliteration.

I would like to think of the stimulus being permanent, pervasive and predictable. Permanent will have more of an effect, obviously. By pervasive, I mean forget targeting. Try to make it as broad as possible. Don't worry about targeting so much, thinking it is going to have more of a stimulus. You need to be, if you like, broad-based if you don't like the word pervasive.

And predictable seems so important to me. Many of the criticisms that we are hearing about policy these days is it is ad hoc. It seems to be changing all the time. The mere fact that we are

considering a second stimulus so soon after the first stimulus is an indication of that, it seems to me.

So what kind of policies would be permanent, pervasive, and predictable? There are many, quite frankly, that fit those principles. But the one that I would like to suggest is, No. 1, committing through legislation not to increase any tax rates for the foreseeable future, whatever you define as permanent. Put it in the books. No tax rate increases anywhere.

Second is to go ahead with President-Elect Obama's proposal to have a workers' tax credit of 6.2 percent of wages, up to $8,000 in wages. Make it permanent, though. Forget about one-time rebates. Just make it permanent. It will have more of an effect. So that is the pervasive aspect. It is across the board, but it is helping additional people.

On the spending side, I think the most important thing is to lay out a spending path for the next few years to show how you are going to get from where you are now with the stimulus back to balance. And if you want to bring forward some of that spending as best you can, maybe things that are already on the books, that is fine, but the important thing is to lay out a path to get back to a balanced budget.

And fourth, I would remind you all that we have a stimulus program automatically in this country. It is called the automatic stimulus, automatic stabilizers, and that is the fact that spending automatically increases in recession and revenues automatically come down. I estimate that the stimulus from the automatic side is going to be about 2.5 percent of GDP this fiscal year. So make that part of the package. You don't have to pass legislation to get that 2.5 percent, but that is there and it is part of the whole stimulus.

The questions that Senator Gregg asked, I will just answer briefly. We can come back to them. I do think that some of the TARP money should be used directly for the borrowers and the homeowners to help directly the foreclosure problem that we have, but I do not think additional funding or loans are appropriate for the automobile industry. Thank you.

[The prepared statement of Mr. Taylor follows:]

Chairman CONRAD. Thank you. I am going to go to Senator Sanders. I am going to reserve my time and go to Senator Sanders first on our side, then come back to Senator Gregg, then Senator Murray, then Senator Nelson on our side.

Senator Sanders.

Senator SANDERS. Thank you very much, Mr. Chairman. I don't know that I have any profound questions, but I want to thank you for holding this hearing. We are dealing, as I think our very able panelists have told us, with something that is almost unprecedented. It is very frightening and we are all going to have to scramble to figure out how we come up with some sensible solutions.

Just a few points that I want to throw out and maybe the panelists can comment on it later. We have talked about the immediate impact of the financial downturn in terms of increased unemployment and foreclosures and so forth, but one point, Mr. Chairman, I want to reiterate, one of my real frustrations with the Bush administration, well before the immediate financial crisis, is their re-

fusal to address the reality that even before the crisis, the middle class in this country was in serious decline. So this didn't happen a few months ago.

We have had—and the reality is, and we have to put this out on the table, is that in the United States, among all of the other industrialized nations, we have the dubious distinction of having the highest rate of childhood poverty. Forget the immediate financial crisis. Eighteen percent of our kids are living in poverty. We have the highest overall poverty rate. We have the highest infant mortality rate. We have the highest incarceration rate. We spend $50,000 a year to keep people in jail, and if anyone thinks that is not related to having a very high poverty rate, I would seriously question your judgment.

We have also, Mr. Chairman, and I think we have to address this issue, as well, how does the grossly unequal distribution of income and wealth play into this financial crisis? According to at least some analysts, the top one-tenth of 1 percent earn more income than the bottom 50 percent, and we are moving in the direction of Brazil, of Russia, of very unindustrialized countries in terms of that discrepancy. Do we address that issue? How is it related to the crisis that we face?

And, of course, we are the only major country on earth without a national health care program.

So I want to maybe throw into the hopper here for further discussion some of these longer-term problems that our economy is facing, how that ties into the financial crisis, how do we address that.

Mr. Chairman, I agree with much of what you laid out in terms of what a package would include, a stimulus package, but I agree with, I think, it was Dr. Zandi talking also about the need to move us to sustainable energy. I think there is enormous job creation in energy efficiency. I was just in the United Kingdom last week. They are talking about creating a whole lot of jobs in energy efficiency and I think we can do that. Maybe the panelists can discuss the impact on our economy of importing $700 billion a year of foreign oil and why not investing in sustainable energy—wind, solar, geothermal, biomass.

The other things that I think we may want to also throw on this table for discussion is I think the loss of faith. We talk about loss of confidence from an economic perspective. I think there is a deeper loss of faith in corporate America in general. I could tell you that in my State, people are furious. People are struggling to keep their heads above water and the idea of placing at risk $700 billion of taxpayer money to bail out people on Wall Street who in the past have made just huge amounts of money investing in very reckless, exotic financial packages, that brings about the issue of re-regulation. It brings about the issue of greed in our society.

Are we in a healthy state when so much money is being played about in the financial sector while our manufacturing sector is in rapid decline? Doesn't it make a lot more sense to maybe put money into producing products that the American people consume so, in fact, we don't have to import everything from China rather than have guys make huge sums of money playing on Wall Street?

The other point that I want to make, we have heard some statistics about unemployment. There is a question about the validity of unemployment. For example, I believe we have about ten million people who are unemployed today, roughly speaking. We have another seven million people who are underemployed, i.e., who want to work full-time who are working part-time. Is that something that we should throw into the hopper? Is, in fact, the economic situation a lot worse? Do we have Ph.D.s out there who are driving taxicabs or working as waiters or waitresses? Is the problem even worse than we are suspecting it is?

So, Mr. Chairman, those are a few of the issues. I think this has been an excellent presentation. I think you have different philosophical points of view and I think they all have something to say, so I just wanted to throw out some of those ideas to further the discussion. Thank you, Mr. Chairman.

Chairman CONRAD. I would give, if the panel wants to react to any of that, I would give them the opportunity. Mr. Zandi?

Mr. ZANDI. Sure. I do agree that the unemployment rate, where you ended your remarks, is not an adequate measure of the stress in the labor market and the job market. It is 6.5 percent, but if you do add in discouraged workers, so-called discouraged workers who aren't even looking for work, that aren't counted as unemployed, and you consider those that are working part-time for economic reasons, certainly underemployed, and also some of the self-employed people whose payroll job end and they try to make it by becoming self-employed, then we are already into the double-digits, 11, 12 percent already there.

Senator SANDERS. Do you think, by the way, and I know that is out of the jurisdiction of this committee and maybe it is in the Health and Education Committee, that we might want to take a look at reconfiguring how we determine real unemployment in America?

Mr. ZANDI. I think the Bureau of Labor Statistics actually has different measures of stress in the labor market. We focus, we the economists focus on the unemployment rate, the 6.5 percent, but in the monthly report that the BLS puts out, they have different measures of underemployment and you can measure it and you can see it and——

Senator SANDERS. The point you are making, though, is the economic situation is really perhaps a lot more severe than that 6.5 percent.

Mr. ZANDI. Yes. I think the 6.5 percent understates the stress and the change in the level of stress that is occurring.

And again, just to reinforce a point, this is—one of the unique features of what we are in is how broad-based the problem is. It is across all industries. It is across all occupations. It is across all regions of the country. In other downturns and recessions, you had industries that were doing reasonably well. You had occupations that were OK. You had regions that were fine, so that people had some options. They could move from Michigan to Florida. They could move from California to Arizona. They could try to go get retrained for another job in the tech sector or in the health care industry. But those options are much more limited and I think that

is weighing very heavily on the collective psyche. So the problems are much broader based.

Senator SANDERS. Say a word about income and wealth and equality. Can you have a sustainable strong economy when so few have so much and so many have so little?

Mr. ZANDI. My view is that income inequality is a problem. Income and wealth inequality is a problem, and a problem in the sense that there is a skewing of the distribution of income and wealth and the skewing hasten worse over time, and the forces at work creating this are firmly in place. So it suggests that it is not going to get any better, it is going to get worse going forward.

I don't think it is a major contributing factor to the mess we are in right now, but I do think it is going to be a very serious problem that we are going to have to tackle in the future in that we have very significant long-term fiscal problems that we are going to have to address and I don't think we can address those problems without putting it through the prism of what it means for the distribution of income and wealth.

Senator SANDERS. Thank you.

Dr. Johnson.

Mr. JOHNSON. Yes. I would like to take up this—I agree with what Mr. Zandi is saying, the points he made, but I would like to take up the inequality point a little bit more. I actually think it does matter today and I think this feeds into what I think we can see developing as a bailout fatigue in the U.S. People are very annoyed, as you say, with the leadership that got them into this, and they are not really happy with some of the unions who are involved in the auto industry, as well. There are some issues there about differences in pay.

Mostly, I think, though, there is a lot of pent-up frustration. This is a big problem, because unfortunately, in this very difficult situation where the credit system is collapsing, we have to consider bailouts or rescues for all kinds of different things. We are not going to hopefully do all of them, but some of them—they want to do things that we wouldn't ordinarily do and not be comfortable with, and that is going to make people very angry because of the inequality.

I think the way to address that going forward is by working on education. I think a lot of the inequality comes from the fact that the income difference between people with high school education and college education is getting wider and wider, probably because of technology——

Senator SANDERS. Should we follow the route of many of the European countries and make college free or virtually free, does that make sense to you, for those who are qualified to get in?

Mr. JOHNSON. I think what you want to do is find ways to make sure that people who leave high school have better, stronger technical skills, which is also what they do in Europe, without necessarily requiring or pushing them to go into a college education program.

The other point I would like to make——

Senator SANDERS. I think my time has long expired, so——

Mr. JOHNSON. On energy efficiency, I think investing in technology development would address exactly your concerns there. I think that makes sense.

Senator SANDERS. Thank you very much, Mr. Chairman.

Chairman CONRAD. Senator Gregg.

Senator GREGG. Thank you. We could get into the education debate and spend hours on it, but your point, which is that in Europe, they basically two-track people in high school and you get to choose which track you want to take, a technical high school or a liberal arts high school, has always been a matter of considerable debate in the Education Committee, which I also serve on and had a chance to chair for a while.

I was interested in your chart, Dr. Zandi, which showed the drop in the debt, because I am wondering if there might actually be a bright side to that in that we clearly, as a result of monetary policy over the last 6 years where money was made so available at such a cheap rate that there was an excess amount of debt put out there, it is clear that what we are going through now is an economic event which is a function of that excess debt being worked out of the system. How close are we?

We heard in testimony in this committee that there was $2 to $3 trillion of excess debt in the system, most of it in the real estate accounts, that had to be worked out of the system, and that that was what this event was all about, or not all about, but that was at the core of this event. How close are we to that work-out? I mean, are we at a point where—you had that line that came down rather dramatically. Are we at a point where we actually may be in a situation where we have shaken out the excess debt or close to it so that you can start a recovery based off of assets which have value as versus assets which are overvalued due to excess debt? Is that the bright side here, hopefully, or is that an overstatement?

Mr. ZANDI. Well, no, there are some rays of sunshine. You might have found one of the rays. We are working through our excesses rapidly. Let me just give you some numbers to sort of benchmark that.

The financial system as a whole has written off about $650 billion worth of assets, and that is U.S.-based assets. Those are assets that are held by U.S. financial institutions and overseas institutions, but they are all U.S.-based assets. Most of those are residential mortgage assets, so mortgage securities, mortgage loans. I think we have made a significant amount of progress there with respect to working off those bad assets, but because the economy is eroding and house prices are falling and we are going to see more foreclosures, we are not done. We have more work to do there.

But the real problem is there are a lot of assets to be written off elsewhere in the financial system. Those would be credit cards, vehicle loans, other consumer finance. That would include commercial real estate loans, which are only now starting to go bad. That would include corporate debt that we have struggled with. And if you look at estimates of the losses there, I have done some, the IMF-World Bank have done some, that would suggest that we have at least another $700 or $800 billion to go, that that is what is in train that we think we are going to have to——

Senator GREGG. So the $2 trillion number we heard earlier is approximately in the ballpark?

Mr. ZANDI. It is in the ballpark, and we are not——

Senator GREGG. We are halfway through that number——

Mr. ZANDI. If we are lucky, we are halfway through the number. Now, just one other point. I am sorry.

Senator GREGG. Can you make it quickly?

Mr. ZANDI. Yes. I was just going to say, that is a moving target, right, because as the economy worsens, people lose jobs.

Senator GREGG. Right.

Mr. ZANDI. Two trillion is——

Senator GREGG. Dr. Johnson, you made the point that the banking industry may not be stabilized, or the financial houses may not yet be stabilized. The financial houses are gone. We are back to the banking industry. That the universal banks are not stabilized yet. I think there has been some—certainly, Secretary Paulson has said that he thinks we are past the systemic meltdown period threat, that we still are into an extraordinarily serious recession. Are you still of the view there is a potential for a systemic meltdown?

Mr. JOHNSON. I think that is the right question, and that is still the question of the day. I think that the period of default by major U.S. banks has gone down, and that is reflected in the market view, for example, from the credit default swap spreads, which you are probably familiar with.

However, the view in the market at the same time is that while the debt is probably OK, these banks' business models of profitability is going to erode, and the counterpart of the losses you were just discussing with Mr. Zandi is big hidden losses, or not yet disclosed losses or not yet understood losses on the balance sheets of these very large banks.

So in other words—so, for example, one large U.S. bank I prefer not to name in public has a market capitalization substantially below its Tier I capital right now. So how is that possible? It is possible because the market view is they have a lot of losses. About half the Tier I capital is going to be wiped out based on what the market was seeking yesterday by the losses that you were talking about, when they take those write-downs.

So is it a systemic crisis if the value of all the banks in the U.S. goes to zero at the same time as they continue to service their debts and the creditors are OK? It is not a classic systemic crisis. It is not a classic bank failure, but it is pretty bad because it will feed into a continuing downward contraction of credit.

And remember, the key problem of the 1930's, the onset of the Great Depression we think of as being about bank runs and bank collapses. What it was really about was the collapse of credit. Now, credit can collapse either because banks fail and you don't rescue them, or because the banks just shrink their balance sheets down dramatically and they are basically putting themselves out of business. They wind down. Nobody wants to invest in them. And then you are faced with a very difficult situation, which is what do you do with these banks? Does the government come in and recapitalize them? I know that is not the question yet of the day, but I think it will be soon.

And I think, going back to your original question about the top, which I didn't fully answer, I think you should save that money for recapitalizations that you are going to need to do if the recession becomes substantially worse.

Senator GREGG. Well, that is a very optimistic view.

[Laughter.]

Senator GREGG. Dr. Taylor, I liked your three words. I think that those are the ones we should be focused on. You suggested that the Obama proposal should be made permanent. Do you include in that the Obama proposal to raise the top rate?

Mr. TAYLOR. No. Actually, my list of items explicitly says we should commit now not to increase any tax rate, and that includes tax rates on small businesses, that includes tax rates on capital gains, that includes tax rates on dividends. Absolutely, I think that would be a mistake to increase those taxes. So the first part of my proposal, and I believe it would be a stimulus, it would be a stimulus that you might not count in terms of money because right now, if you just commit not to raise those taxes, if anything, it is going to raise revenue because it will stimulate the economy. So in terms of your measure of costs, it is really cheap.

I would do that if you could possibly do it, and that is why I mentioned the second part, add to that President-Elect Obama's proposal to have a tax cut, rate cut—this is a rate cut. You take 6.2 percent of your wages and refund that and make it permanent. You could limit it as he proposes to $8,000. That is fine. But that would actually broaden the idea of this permanence of the tax cut.

So I think combining those has a lot of appeal. First of all, it is bipartisan, if you like, because there are different parts of the aisle liking both of those. Second, there is this broadness, pervasiveness that I have—and it is permanent. So I think there is some appeal there.

Senator GREGG. I appreciate that and I agree with that actual approach.

I am sorry my time is up, but I do have one more issue that I think has to be asked, which is the elephant in the room that nobody has mentioned. If you put $400 billion of stimulus onto the Federal books, we are taking the Federal deficit over one trillion dollars. That is probably somewhere in the seven to 8 percent range of GDP next year. What does that mean? Or doesn't that matter in the context of what we are facing relative to the economic slowdown?

Mr. TAYLOR. See, in my view, it certainly matters. In fact, it seems to me you should be thinking of the stimulus not so much in is it going to be how big the deficit has increased, 1 percent, 3 percent, but really what it is going to do to the economy. Just my example of the rebates, you could say, oh, that was $100 billion, a certain fraction of GDP, but it didn't do anything and I am giving you a proposal which would do a lot and wouldn't cost anything. So I don't think you should be measuring these by how much it is a share of GDP or increases the deficit.

And I do agree that just flagrant ignoring a one trillion dollar deficit is a mistake. It is a concern, a very serious concern, and I think whatever the deficit is you decide, remember, it is going to be more than that because of the recession, 2 percent, 2.5 percent

of GDP because of the recession. So you have to think about a glide path, a serious part of any proposal, it seems to me, to get back to balance, and you decide the new debates and the new administration will decide the debates. But it is very important for credibility to see we are on a glide path to stop this deficit spending.

Mr. JOHNSON. Could I just add one point on the very important issue of automatic stabilizers Professor Taylor raised before. The U.S. does have automatic stabilizers, but it has the weakest automatic stabilizers of any major industrialized country because we have a relatively small government. So in most other industrialized countries, they don't have to have this conversation that we are having because they have a larger automatic stabilizer from all of the factors that Professor Taylor was talking about.

So the question is, should the U.S. top that up with a discretionary decision that you would have to make, or should we rely on what we have, automatic stabilizers that are relatively weak compared to what other countries in our position rely on.

Senator GREGG. Dr. Zandi.

Mr. ZANDI. Yes. I think deficits matter, but I think this is a very good time to deficit finance because no one else is borrowing. The private credit markets have completely shut down. Seriously, in a normal, quote-unquote, "normal" year, credit markets raise $5 trillion worth of capital. Right now, there is zero private capital. So you can borrow and borrow very cheaply and this would be a good time to do it.

But this is important, and this is why temporary is important because that signals that in the longer run, you are very concerned about the fiscal situation. If you make all the tax cuts permanent, that is a permanent increase in our long-term deficit situation, which is going to get very serious in the not-too-distant future. So that is the downside of permanent and why temporary is important and why I think we should be very careful about permanent or temporary.

Chairman CONRAD. Senator Murray.

Senator MURRAY. Thank you very much, Mr. Chairman. This has been an excellent hearing. I can't say it has been uplifting, but it has certainly been, I think, an important one for all of us to understand why we are where we are and what the possibilities are trying to move us forward and what our responsibilities are in moving forward.

I certainly agree with you, Mr. Chairman, on transportation infrastructure. It seems to me the best thing to do is to have people at work getting a paycheck, having a skill, creating economic development. I know my State has $98 million worth of highway infrastructure projects ready to go. I am sure every State does, and like yours, they don't have the capacity today to do that. We will have to work hard on that, obviously, over the next several months to put a package forward, but I hope that that is part of it.

I did want to ask the panel a few questions? You outlined for us why we are where we are and consumer confidence. Housing foreclosures clearly got us to where we are in the tight credit market, but consumer confidence, it seems to me, is really keeping us here in a very difficult place. How do we increase consumer confidence, or consumer spending? Dr. Taylor, you said the rebate checks were

essentially not going to get us there. What is it that we can do to increase consumer confidence? Dr. Zandi, let me start with you.

Mr. ZANDI. I think that requires a very concerted, consistent, overwhelming policy response, and that is fiscal stimulus, that is aid to homeowners, that is expanding out the use of TARP, not only for homeowners but for more capital infusions, and I personally believe that giving up on asset repurchases is a very significant mistake because that is necessary for price discovery, which is what you need to get private capital back into the financial system. So I think that should be also pursued.

Senator MURRAY. The toxic asset purchases that we originally——

Mr. ZANDI. Exactly. I think abandoning that idea is a very significant mistake, yes.

Senator MURRAY. And define for me why you think that again?

Mr. ZANDI. Because I don't think you are going to get private capital coming back into the financial system until they understand the value of the assets that are on the balance sheets of these institutions, and you are not going to get that until you get price discovery, until they know what the price is, and you are not going to get that unless you have a buyer for the assets, and there are no buyers except for the Federal Government, at least not in the foreseeable future.

Senator MURRAY. So you are saying consumer confidence, dealing with the housing market has to be part of that——

Mr. ZANDI. I think it has to be all of those things. I think it has to be overwhelming. In my view, in times of crises, the only way out is overwhelming government response in a very concerted, consistent, and comprehensive way, and it is all of the above very quickly.

Senator MURRAY. Dr. Johnson.

Mr. JOHNSON. I think the way to think about your question is what is going to happen to spending? Whose spending is going to be affected by this very deep recession unless you have the fiscal stimulus? And I think this also—you want to take on board the points that Professor Taylor is making, which is, is somebody liquidity constrained? Is somebody really short of money? They didn't get their paycheck. They just got laid off. They have other problems.

And I think there is a set of measures that you can take, both with the aid to State and local governments, because they are cutting back and they are laying people off directly. You know, that is going to have a big effect on spending by their employees. The unemployment benefit, extension of unemployment benefits, I think there is a lot of agreement that this is something that will support spending as well as being a good, fair idea. Food Stamp aid, again, does the same thing. If you can find ways to help the distressed homeowners, potentially, this is a way to affect spending, also.

These are immediate things. These are things that will happen right away. These are people who are going to spend less money for the holidays because of the difficulty of the situation. So I think that even recognizing that there is a great deal of uncertainty, that nothing will work exactly as intended or hoped in this kind of situation, I think these things will really move spending.

And I would just like to add, I would respectfully disagree with Mr. Zandi's view on top. I actually think not buying those distressed assets at this point was a good—actually, I never thought it was a good idea, to be totally honest. There is a private market for these assets. It has a very low price on them because their value is declining because the real economy is falling. And if, contrary to some of the initial hopes expressed for that program, if the economy goes down far enough, if house prices fall enough, then those assets are going to be worth essentially zero.

The key thing is support the real economy. It is a very hard thing to do in this situation. The measures that we are proposing, which are pretty big—include a pretty big fiscal stimulus, may not work. It may not be enough. It may not save us from a very deep, prolonged recession. But I think it is worth trying.

And I do also, on the point about budget deficits, I do worry about the budget deficit. I am not somebody who has ever previously argued in favor of big deficit spending in this kind of situation. I mean, this is a very unusual situation. This is why you saved the U.S. balance sheet. Save it for when you need it. Now, you need it.

Senator MURRAY. Dr. Taylor, how do we increase consumer confidence?

Mr. TAYLOR. The biggest drop in consumer confidence is just in the last month or so. The October numbers just fell like a rock. And I think in terms of what government can do, it seems to me is to, just as you were saying, be as clear as possible about the understanding of where this problem came from, articulate that. I think people still don't understand it. You know, your constituents are confused. The more that you can explain, and we in the private sector can explain it, the better.

But I think in terms of instilling confidence, the more—I would say this, going back to this predictability thing, the more that you can outline a strategy for the longer term and don't keep changing it all the time and don't look ad hoc but look predictable and be predictable, the more confidence people will have in their government. When they see a testimony asking for $700 billion with apparently little documentation for that, that worries them. When they see the markets reacting negatively to that, it is very visible, of course, the stock markets.

So I would say, to me, the most important thing—that is why I am stressing here today, yes, do something, but make sure that it is a strategy that you are not going to have to come back to in another 6 months. It is so important.

Senator MURRAY. Are you going to break the tie here on whether we should purchase toxic assets on this panel?

Mr. TAYLOR. Well, I think, and let me just say about it, this is another example where changing itself has some problems, OK. Obviously, you want to change when things aren't working or when the circumstances have changed. But I think people look at that change and they say, well, what did change between the testimony of Secretary Paulson here on the Hill with Chairman Bernanke and the new—what changed? Why did they do that?

And so I think more explanation for it. I actually think a more balanced use of those funds, you mix it here and there, so you keep

the toxic assets as a possibility. You keep the equity injections. You add in what Senator Gregg asked about, direct assistance to the borrowers, the home mortgage holders, the people that are underwater. Try to fix them. They are the heart of the problem. That is why the derivative securities are such a problem, because those payments aren't being made.

And I would add a fourth one which doesn't cost much at all, is just to require more disclosure of what is in those toxic assets right now. You know, you try to tell someone, well, I have this CMO filled with a thousand or 10,000 mortgages. We don't know what the status of the payments are on those mortgages. We should require that it be posted on the websites, what is in those things. Then people would begin to have a market for them. So I would add that as a fourth——

Senator MURRAY. The unknown is contributing, as well.

Mr. TAYLOR. Yes.

Senator MURRAY. And I am absolutely out of time, but I just want to say, Mr. Chairman, we have focused a lot on what we need to be doing. I agree, it needs to be very focused, very clear, very predictable. But I also hope we have some point we can talk about what is happening in the global marketplace, too. I think several of you mentioned that in your opening remarks. What happens if other countries don't respond equally as we hope we will do.

Chairman CONRAD. Thank you, Senator Murray.

Senator Sessions.

Senator SESSIONS. Thank you, Mr. Chairman. I would just ask the panel if you agree with the statement that was in a USA Today editorial a month or so ago that said an economy founded on excessive personal debt, excessive government debt, and a huge trade deficit is an economy in trouble. Would you fundamentally agree with that? I don't see any disagreement, so I assume you would agree with that. Dr. Johnson?

Mr. JOHNSON. I am sorry. I think it is rather too simplistic a statement. I think there are serious issues in the United States, including longer-term issues of poverty and inequality. I think you have to be very careful in terms of managing the fiscal accounts, and it is certainly the case that some consumers obviously went too much into debt.

But I would like to emphasize that in the middle of September, or at the beginning of the second week of September, this economy was not in serious major recession. We did not have a global contraction of credit underway. The problems, the severity—we had these underlying problems. We had mortgages. We had issues with financial institutions. But the problem was nowhere near this size of this—the magnitude of this problem, the enormity of this problem and the global nature of it was caused by a crisis of confidence triggered by the way the U.S. Government, I am afraid to say, handled Lehman and then AIG. They created the strong impression that AAA credits were no longer secure anymore. This causes a massive loss of confidence in credit, and so everybody who has debt, even a little bit of debt, around the world has major problems right now.

Senator SESSIONS. Well, one commentator wrote in 2006, that housing prices cannot continue to increase at a rate double that of

GDP when wages are flat. Now, that is a bubble. That has been going on for some time. And when people's credit cards are at their limit, they can't keep spending. And when the trade deficit is enormous, it creates economic uncertainty in people who are buying our debt. And I don't think we can buy our way out of this one, Dr. Johnson.

Dr. Taylor, do you have any view of it?

Mr. TAYLOR. No, I agree with the general philosophy of what you are saying, Senator. In some sense, maybe you are always looking for silver linings here, I think a few people asked already. And one perhaps is that we will in the United States get our saving rate up——

Senator SESSIONS. It is going up a little.

Mr. TAYLOR. It is going up, yes.

Senator SESSIONS. Last year, we had zero savings. This year, I think we have had two or 3 percent savings.

Mr. TAYLOR. I hope it doesn't go so fast, but it has to be—if it is adjusting, that is a silver lining and that will affect our trade deficit and our borrowing from abroad, or will bring both of those down, which is a good thing.

So ultimately, we probably had to make this adjustment and the difficult thing is it is happening so abruptly and with so much destruction. But the idea of gradually raising our saving rates, personal as well as government, reducing the trade imbalances, which always cause risk, reducing the amount of assets, of American assets, U.S. Treasuries held by foreign central banks and other governments, all those are good things if we can get to those.

Over the long run, I think if again, making sure—before you came in, Senator, I said, let us be sure that we have agreement on some kind of a glide path when we get out of this that we are going to get back to a zero deficit. Put that in the plan, whatever stimulus plan it is you come up with, so that will include building up some confidence, as Senator Murray was asking about.

Senator SESSIONS. Doctor, I will just comment on that. One commentator said recently—Mr. Chairman, I think I shared this with you—that during the decline of a nation's fiscal responsibility and discipline, the government and the leaders cite the old verities while doing just the opposite. So I am hearing people say, well, I wish we didn't have to go in so much debt. I wish we didn't have to bail this private company out. I wish we didn't have to do this, while we are pell mell doing it, and I don't think it is good policy.

At a most fundamental level, Dr. Zandi, just one more thing. I do believe there are things government can do to minimize the destruction that you referred to. I am open to that, but I do think those actions need to be as targeted and as narrow as possible. Your comments, Doctor?

Mr. ZANDI. No, I agree with you that the fundamental problem is we took on too much debt as consumers—not all consumers, but a fair share of consumers, and that that debt is going bad and it is choking the financial system and the broader economy.

I think, though, that wrong needs to be righted in an orderly way, and right now, it is being righted in an extraordinarily unproductive way that is hurting everybody, even the people who didn't borrow, because their housing values are falling, their stock port-

folios are depreciating. They are losing their jobs. They are not getting credit, even though they are, under any normal circumstance, good credits.

So that is, unfortunately, the situation we are in and it is becoming very self-reinforcing. If there isn't a response to that, then you run the risk of it all sort of devolving, and that is why I think we are at a very unusual point where it is very important for policymakers to be aggressive to try to short-circuit that cycle so that this righting of the wrong, which you are absolutely right about, happens in an orderly—a reasonably orderly way.

Senator SESSIONS. Dr. Zandi and to you other panelists, let me just say to you that it is easy for business people and economists and theoreticians to announce all these things and you tend not to consider the deep fundamental philosophical problems we are creating when we do this. I heard Barney Frank on the TV today cite the 100-and-something billion dollar bailout of AIG in support of his belief that we should do another $25 billion on top of the one we are talking about for the automobile dealers.

So when the floodgates are open, guys, I mean, I know if you could just run this economy and you could manipulate it all, you think you could do better than Secretary Paulson. I think you probably could, but——

[Laughter.]

Senator SESSIONS [continuing]. Once you start down that road, it creates a lot of problems. In the long run, I think we will look back and see that we would have been better being much more modest than our actions today would suggest.

Chairman CONRAD. Senator Nelson.

Senator NELSON. Thank you, Mr. Chairman.

In a few hours, we are going to vote on whether to proceed to a bill on auto bailout. It is $25 billion and it has some restrictions, I really don't know what restrictions, but any advice?

Mr. TAYLOR. Well, I will just mention in answer to Senator Gregg's question, I think the $25 billion you have already decided on is there and should be used.

Senator NELSON. That is in the past. It is in the past.

Mr. TAYLOR. It is in the past. And so with respect to an additional amount, no, I don't think that is the way that you should go.

I read the testimony of the three CEOs from yesterday and I read it very carefully with respect to the current economic situation. The main rationale they have, if you look for it, of course, they indicate why their companies are doing well and they are winning this award and that award, but they also mention that the reason they need this money is because of this credit crunch, the credit crunch that we all talked about in this testimony.

Well, why not every company in the United States who is experiencing—you know, what about the small guys? What about the small businesses who are facing exactly the same credit crunch things? Why—and if you add them up around the country, there are more workers involved. So that is my——

Senator NELSON. OK. Let me, with the limited amount of time, let me get the other two. Dr. Johnson?

Mr. JOHNSON. I think that this is a terribly difficult decision, because I think you are in danger of opening the floodgates. The only

case that I can see for—two cases I can see for this are if you believe that Chapter 11 bankruptcy would actually lead to the closure of the businesses and massive disruptions through the suppliers, which is what they claim. It is very hard for outsiders to evaluate fully. Some, I think, smart analysts think that that might be a possibility, and the question is do you want to take the risk in this situation.

The second point is, why them and why not others? I think they could potentially be systemic. They owe a trillion dollars in debt. In fact, you could argue they have run their—at least car companies have been run rather like banks that gave away cars below cost as some sort of a very strange incentive program. They made money on the loans. All of these loans have now gone bad. Well, ordinarily, they should face the music and ordinarily they should have to restructure. I think that is where this is heading. Do you want to make them do it right now? Do you want to gamble with that at this moment in the U.S. economy and the global economy, with the importance of those jobs in the U.S. economy?

I think it is really an unpleasant place to be in. But unfortunately, at this moment, I think you have to get them through the next few months. Then they have to do a Chrysler-type deal. With or without officially going bankrupt, they have to have concessions from everybody, including the suppliers, including the executives, including the workers. That is the only way they are getting out of this.

And they have to push through restructuring. GM cannot explain why they still have so many brands and so many models. There are a lot of things that still don't make sense about the way they run their business. I don't think we can afford to have them collapse right now.

Senator NELSON. And the problem is, the collapse of Chrysler, which I voted on years ago as a young Congressman, we had a Lee Iacocca who offered some leadership. There are no Lee Iacoccas today. As a matter of fact, the way that they have conducted themselves over the years makes me doubt anything that they are saying, so that when they say, well, we will go into Chapter 11, well, I really don't know that that is true.

Dr. Zandi, do you know if that is true?

Mr. ZANDI. I think there is a very good chance they will go into bankruptcy.

Senator NELSON. Between now and January?

Mr. ZANDI. Yes, a reasonable probability that they would, just looking at their cash and how quickly they are burning through their cash. But I don't know that I would vote—I don't think I would vote for this legislation. I think bankruptcy is the appropriate way to go and I think when they got into bankruptcy, if they were having trouble getting financing to have an orderly bankruptcy, which would be why they would go from a Chapter 11 to an effective 7, a liquidation, and that is when you would see the massive layoffs, it would be at that point that I think you might want to respond, either through some kind of guarantee to that financing or it may even be a place, and I don't know this for sure, but it may even be a place for the Federal Reserve to enter in. They may be able to provide some guarantees on that financing.

Because I think you are right. If you give them the money, it would be very surprising to me if they don't come back for more money. And it would also be very surprising to me that they could go through the restructuring that they need to to become viable companies in the long run. The only way that is going to happen, I think, is if they go through the very painful bankruptcy process, because that is going to bring all of the stakeholders of these companies together, the creditors, the management, the shareholders, the unions, and they are all going to have to make those tough choices together, and I don't think those are choices that they are going to make outside of bankruptcy.

Senator NELSON. Let me go back a few weeks ago when we were told—we were all on a conference call on our Democratic Caucus with Paulson and Bernanke. The Republican Caucus had done the same thing. They, those two, told us that there could be a complete economic meltdown by Monday, when this was a Friday conference call. Was that accurate? They said there could be unless we signaled that we were going to do something, which we did. Was that true?

Mr. ZANDI. In my view, that was a very significant risk and threat, that the financial system broadly was literally on the precipice of collapse, meaning that you would have a lot of major institutions failing and it would shut down the system completely. Yes, I think that was a reasonable threat, yes, risk.

Mr. JOHNSON. You didn't say which Friday it was, but if I can guess which Friday it was——

Senator NELSON. Yes, it was when all this stuff started.

Mr. TAYLOR. It was September 19.

Senator NELSON. Yes.

Mr. JOHNSON. Then I think their assessment on that day was correct, and I think—remember how they got there, or remember that the week before, they had declined to save Lehman and many people, including myself, thought that was a very brave move and I thought they must have done the math very carefully and I presume that they knew that the consequences would not be severe, and I don't know what they knew and they didn't know, but 2 days later, they had to save AIG because of the way these things are interconnected and the way that the financial system is structured.

That is the danger here, is that you can make a decision about not saving an entity that is very interconnected, has a huge amount of debt, and 2 days later, you have to put a lot more money into preventing the system from collapsing.

Senator NELSON. And we are still putting money into the black hole of AIG.

Mr. JOHNSON. And I think you will be for some time.

Senator NELSON. Did you have a comment, Dr. Taylor, and then I will——

Mr. TAYLOR. Yes. I remember September 19 very well. I wasn't, unfortunately, privy to the conference calls or however the meetings took place here so I can't really assess what Chairman Bernanke or Secretary Paulson said that day——

Senator NELSON. Well, they said just what I said.

Mr. TAYLOR. I do feel that a lot of the things that happened, if you look at the TED spread that the Chairman put up or look at

the chart in my picture, a lot of that happened after September 19, OK, so it was after the decision to go ahead and do something. So I think, again, going back to Senator Murray's question, there are a lot of questions about how the response to that took place and the confidence problems that that response itself created. It was the whole month of—the rest of September and October were the worst performance we have had in these markets in a long, long time.

Senator NELSON. Thank you, Mr. Chairman.

Chairman CONRAD. Thank you, Senator Nelson.

Let me just reclaim my time, then we will go to Senator Whitehouse.

Senator NELSON. You were very gracious, by the way, to defer so that your other members of the committee can ask questions first. That should be noted for the record.

Chairman CONRAD. Thank you.

I was on that call, as well, and I remember, in fact, I thought the whole conversation was so striking, I wrote it down. I can't remember if it was a Thursday or a Friday, and we were told, I remember very, very clearly, No. 1, if you don't act, the following things are going to happen. No. 2, No. 1, there will be massive additional failures. No. 2, the stock market will collapse. No. 3, the country will enter a deep and possibly protracted recession.

And those statements were notable for their absence of hedge words. There was no, this might happen, this could happen. These were declarative statements. There will be massive additional failures. The stock market will collapse. And this nation will enter a deep and possibly protracted recession, and I took that down as they talked because I thought it was historically an important conversation.

Let me go back to how did we get in this mess. I have been asked—I have just done 50 community forums in my State and I was asked, what is the root cause of all this? And I know so much of the talk is housing, and I know, Dr. Zandi, you are a housing specialist. My own reaction has been my belief is that at the root of all this in terms of government responsibility is simultaneously, we had a very loose monetary policy and a very loose fiscal policy. Unusual if you look at economic history to have a very loose fiscal policy, a very loose monetary policy simultaneously, and we understand the roots of it.

Dr. Taylor, you referenced the monetary policy side of it. We had the Federal Reserve go to 1 percent on the discount rate because of 9/11 and stayed there a long time. Simultaneously, we were running massive budget deficits. My own belief is that created a seedbed for bubbles. And we didn't get just a housing bubble. We certainly got that, but we also got an energy bubble. We got a commodity bubble. I mean, wheat went to $18 a bushel. These things all happened and they happened together, and I believe they had a common genesis.

Coupled with that was deregulation. Coupled with that was individuals taking on debt they had no business taking on. Coupled with that, lenders making loans they had no business making, no documentation loans, liars' loans as they call them. So we really cooked a stew.

So on the one hand, my own belief is that created the climate for bubbles to collapse, and when bubbles collapse, there is a lot of economic wreckage.

So how do we get out of it? Short-term, I believe you do have to have stimulus. You have to have lift to this economy. Only the Federal Government can do it because credit markets are still debilitated and you have very serious falling demand, aggregate demand. So you have to give lift.

On the other hand, I also believe that if we don't send a signal and enter a process to get us back to fiscal responsibility, we will lose credibility and we will have the danger of even greater long-term damage.

So my view is, and this is what I would like your reaction to and response to——

Senator GREGG. Can we, Mr. Chairman, before they react, put that opening statement by yourself in bold letters and distribute it to our membership, because you just hit the nail on the head, in my opinion.

Chairman CONRAD. Well——

Senator NELSON. Amen.

Chairman CONRAD. I hope I have hit the nail on the head. We will see. I think it is so important that at the time we do another stimulus package, we also enter into a process to restore fiscal discipline. I think this whole exercise is not going to have much credibility, and I liked, Dr. Taylor, very much some of the words that you applied here. Dr. Zandi, I liked very much your specific proposals. Dr. Johnson, I liked your bringing to our attention, remember, this is global. This is unlike what we have seen before.

But how about that basic construct, that while we do stimulus, simultaneously we set in place a process to restore fiscal discipline? Dr. Zandi, I would just go right down the line.

Mr. ZANDI. Yes, I think that is vital, because on the immediate other side of the crisis will be the next crisis, and that is our long-term fiscal problems, that we will be right into the middle of Medicare, Medicaid, Social Security, and the math is very daunting. So there is not—I had thought before the crisis that we would have a bit of a window where we could put a process together and really think about this carefully. But unfortunately, that is not the cards we have been dealt. So we are going to have a trillion-dollar deficit this year. We are going to have a trillion-dollar deficit next year. Even if the economy recovers reasonably well, we are going to have very large budget deficits unless we make real changes.

One thing you could do in the fiscal stimulus package with respect—I think all the spending, which is very important for near-term stimulus, should be temporary and it should be very clear that this is temporary. And I think that provides a very large bang for the buck. It creates a lot of jobs and that fills the hole left by the pull-back by consumers.

On the tax side, I do think it might be worthwhile to make permanent the lower tax rates for current lower-middle-income households, and then for upper-income households, tell them exactly how their tax rates are going to rise and when they are going to rise. It probably shouldn't be 2011, and I am not sure what date it should be, 2012, 2013, and it phase in over a 4-year period, but it

becomes very clear, to go to Dr. Taylor's predictable, that you know exactly when those tax rates are going to rise and people can plan for it.

And all of the tax dollars that are generated from that should go to deficit reduction, that it shouldn't be used for anything other than this is going to be a starting point for paying for those big deficits we know we are going to face in the out years after we get by this crisis.

But I think as part of the stimulus, if you can do that, I think it creates predictability and it also is at least a good start to trying to address the long-term fiscal problems.

Chairman CONRAD. Dr. Johnson.

Mr. JOHNSON. I agree very much with what you are saying and I would reinforce it in the following way. I think because of the global nature of the economy and our global financial system, you have to expect that there will be bubbles, again, either somewhere else or actually in the United States. The capital will come in, and this is a little bit about the capital flows we talk about through financing the trade deficit, but much more than that, it is the gross capital flows. Capital comes in and goes out every day. The amount of capital that can come in whenever it sees an attractive opportunity in the United States is enormous and you will not stop it.

The Federal Reserve will not stop the bubbles, I am afraid, just that is the nature of these things. The regulators, even though I am sure you will end up with much stronger, better regulators, they also are not likely to prevent all asset bubbles from developing.

So the only thing you have is the balance sheet, the government balance sheet, and the willingness to deploy it when necessary, but only when necessary, and that you only have the balance, you only have the credibility if you preserve it in the good times.

So I am a little reluctant to commit to exactly the glide path Mr. Zandi laid out because I don't know how long this recession is going to be. I need a bit more time, 6 months at least, to see where this is going. But I think the general idea that you are expressing and that Professor Taylor was talking about is right, that you want to keep the debt at sustainable levels. You want to preserve your financial firepower for when you need it.

And I think you don't need it very often, all right. You need it in the aftermath of the collapse of these massive, massive bubbles. I don't know if that is once every—I hope it is not more than once every 10 years. That is the point of fixing the regulation. I think you need it now, but you also need to address the fiscal consolidation absolutely as a priority going forward.

Chairman CONRAD. Dr. Taylor.

Mr. TAYLOR. Yes, I would just add that one way to add to the credibility that you rightly want to convey would be as disciplined as possible in the package itself. In other words, look for things, and I gave some suggestions, where you can stimulate the economy without increasing the deficit. And the more you—or even stimulate the economy and reduce the deficit. So the more you can do to demonstrate currently fiscal discipline, the more credibility you are going to have for the future.

With respect to the tax rates, I see no reason to do anything except to commit to keeping those rates from rising. They are going to rise in 2010 right now in the law. I think that has people worried. Again, it is more than 50 percent of small business income is going to get a tax increase by current law. It is more than 50 percent of capital gains income is going to get a tax increase. And that can hurt—it is already, in my view, hurting the economy.

So you can stimulate this economy by somehow, and I agree, you have a political problem here, somehow committing that we are not going to raise those taxes. We are going to put them and make it as permanent as you can, plus do the things that I mentioned that President-Elect Obama suggested.

Chairman CONRAD. Senator Whitehouse.

Senator WHITEHOUSE. Thank you, Mr. Chairman.

It appears that we all agree with the need for a significant stimulus and soon. It also appears that we all also agree that whatever stimulus we go forward with, it will increase the deficit, whether it is tax cuts that reduce our revenues and add to the deficit or additional spending that adds to our spending and adds to the deficit. That is the predicament that we have here. It seems to be the consensus that right now, the stimulus is more important than the deficit issue in an immediate sense, but the deficit debt problem is one that is very significant, I think probably safe to say even dangerous.

In balancing the stimulus that we require against the deficit that we create, it strikes me that infrastructure has a characteristic that is particularly valuable here, and that is that you end up with an asset when you are done with the spending. And if you presume for a moment that the asset was necessary in the first place, that the bridge had to be built, that the water treatment plant needed to be improved, that the highway needed to be repaved, that the school needed to be cleaned up, then in many respects, if you are doing that spending now, it strikes me that you are really accelerating a future liability and moving a cash asset into a physical asset more than you are pure deficit spending, the way you would if you just sort of threw it out there.

Do you agree? I see heads nodding. Do you agree that that is an attribute of infrastructure stimulus, that it has a kind of an inherent counterbalance or mitigating effect with respect to the debt and deficit problem that we have?

Mr. ZANDI. Yes, I strongly agree with that statement. The only rap against infrastructure spending is it takes, at least historical rap, is that it takes a long time to really have a benefit to the economy. You have to do the plans. You have to cut the checks. You have to hire the people. That could be a year or two from now.

Senator WHITEHOUSE. Let me jump in on you there on that, because an enormous—I am not expert in this and you all, of course, are, but an enormous amount of what I hear talked about in this context is confidence. And it strikes me that if a Rhode Island carpenter or a Rhode Island laborer or a Rhode Island plumber knows that a significant contract for a significant project just got let and he has a job there for the next two or 3 years as that project gets built, that individual's confidence and their appreciation and their sense of relief that they might make it through this thing improves

day one, even if the actual funding doesn't come through in the future. Isn't there some value to that?

Mr. ZANDI. Yes, I think that is a very reasonable argument. I was just going to make the other argument that the problems that we are in are longer-term. They are not the next 6 months. They are not even 12 months. This seems to be a two-, 3-year problem——

Senator WHITEHOUSE. Yes.

Mr. ZANDI [continuing]. That even if the money gets into the economy in 2010, that is going to do us a lot of good.

Senator WHITEHOUSE. Yes.

Mr. ZANDI. The other thing to consider, just from a pure mathematical perspective, if the Treasury borrows at 4 percent, I think most estimates, academic estimates I have seen on the return on public investment, public infrastructure, is much greater than 4 percent. So it almost makes sense from just a purely investment perspective. So it gives you the stimulus, and as you say, you get an asset that yields a return that is higher than the cost of the financing.

Senator WHITEHOUSE. And let me add one more factor in there. What if we were to focus the infrastructure in areas that were of added societal benefit? I mean, one of the things when we think about infrastructure, we very often think about things that the Romans could build, you know, roads, bridges, aqueducts, water facilities. But we need to transition to a green economy. If we do so, there will be substantial rewards in terms of the reduction of our reliance on foreign oil and the hemorrhaging of our funds to oil-producing countries.

If we invest in, for instance, a health information technology infrastructure, almost every expert agrees that that investment will help turn around the direction of health care costs. It may even reduce them substantially.

Is it worth, in the context of the infrastructure, looking beyond Roman infrastructure and looking at other elements that may provide added both economic and social benefit, particularly in the environmental/energy and health care areas?

Mr. ZANDI. I think it is very reasonable. That was your point.

Mr. JOHNSON. Yes. I think that that is a very good additional point to think about. Investment in new technology often overlaps with infrastructure. I think that is what you are saying. And I think this is a very important opportunity because we are facing a longer-term problem and not a 1-year problem. But I think we are agreeing it is a two-, three-, or 4-year problem. Now is the right time to make some sensible decisions.

I would stress the need to be careful. There are countries out there that are spending a lot of money on infrastructure, countries like Japan, that end up spending a lot of money on bridges to nowhere. I don't think U.S. is in that situation. I think we have some very pressing infrastructure needs in terms of upgrading and doing proper maintenance on existing Roman infrastructure, Roman-type infrastructure, and then investing further in that kind of more traditional infrastructure. I would support that as long as it is done carefully. And you do have time to do it now.

Senator WHITEHOUSE. Yes, and the premise of my question was that this was, in fact, necessary infrastructure and not bridges to nowhere.

Mr. JOHNSON. Well, the other point I would emphasize is that low oil prices, low commodity prices actually give you good value for money in terms of infrastructure spending now. Building bridges and roads now is much cheaper because oil prices are low and they are going to be lower, and other input prices are going to be lower. So this is actually a very good time in terms of the global cycle to make those kinds of investments. You get good returns.

Senator WHITEHOUSE. Dr. Taylor, I am down to 43 seconds. Do you have anything to add? I am sorry, we have kind of run you——

Mr. TAYLOR. Just very quickly, it seems to me that if you do believe that the decisions are being made correctly about what infrastructure we need and that there have been decisions made, bring those forward as much as you can, the ones that already are authorized or even appropriated. Bring those forward. That is, to me, the place to start. And it goes back to the idea of looking for ways to stimulate without adding to the deficit, which is, really, we need to be doing that as much as possible.

And I just say, when you talk about public sector, jobs created by the public sector, don't forget the private sector is by far the biggest source of job creation, and anything you can do to help create jobs at private firms should be the highest priority.

Senator WHITEHOUSE. Understood. I appreciate the witnesses' answers and I appreciate the Chairman's courtesy, Mr. Chairman.

Chairman CONRAD. I thank you Senator.

Senator Gregg, would you like——

Senator GREGG. I want to thank the panel. It has been extraordinarily informative.

Chairman CONRAD. I first of all want to thank Senator Gregg very much for helping us organize this panel. I think this has been really exceptionally good. We have had different perspectives from each one of you, very valuable to the work of this committee and more broadly to the work of the Senate in the days ahead. I am certain we will be calling on you in the future. I hope that you are available to us. I think you have provided a lot of food for thought here, and I want to thank you all very, very much.

The hearing is adjourned.

[Whereupon, at 11:55 a.m., the committee was adjourned.]

○