

ECONOMIC CRISIS AND HIGHER EDUCATION

Forum for the Future of Higher Education

The Brookings Institution

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February 4, 2009

Panelists

Looking Ahead

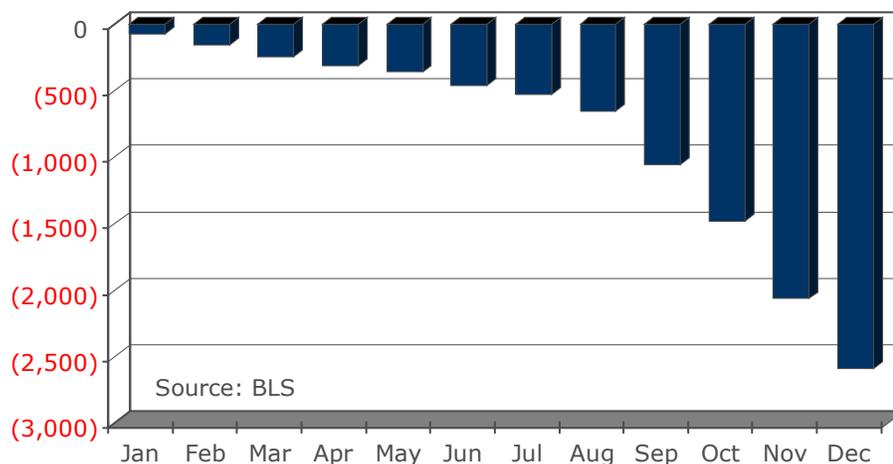
Mark Zandi, Moody's Economy.com

Molly Broad, American Council on Education, moderating

MR. ZANDI: Thank you. This slide show has five different parts. Part one is an assessment of current conditions, how well are things going or not going, and a little bit of a description of how we got to where we are today. Part two is the outlook for the next couple, three years and we can talk about prospects for investment returns and other things in the context of that. I'll also discuss some of the problems that the economy is facing and argue that the economy's prospects are obviously very troubled for '09, 2010 and 2011. By the time I finish part two, you'll be depressed - very depressed - and so then I'll try to lift you a little bit higher. Part three is the policy response. I do think that there are some reasons to be optimistic, that policy makers will do the right thing and that will help stem this slide in our economy and financial system. I'll talk a little bit about monetary policy and the dollar in that context. Then for part four I'll lay out a timeline for how I think things will go. So I'll put very precisely when I think it will end. And then the final part, part five, is what kinds of things would I be looking at to gauge whether everything is sticking to script or whether things aren't going quite as well as what we would hope for.

The Recession Is Intensifying...

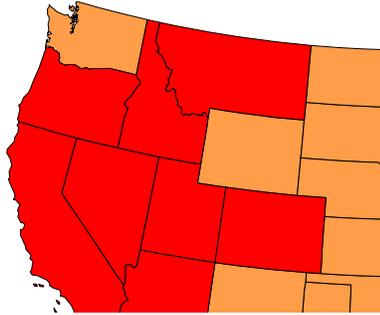
Cumulative job loss, ths



Part one - current conditions. The downturn is intensifying. The recession is now over a year old and we've lost 2.6 million jobs since the beginning of the downturn. We'll get another data point for the month of January and it'll probably show that we've lost another half a million jobs or so in January. So we're up to over three million jobs lost since the beginning of the downturn.

Recession is broad

...Across the Country...



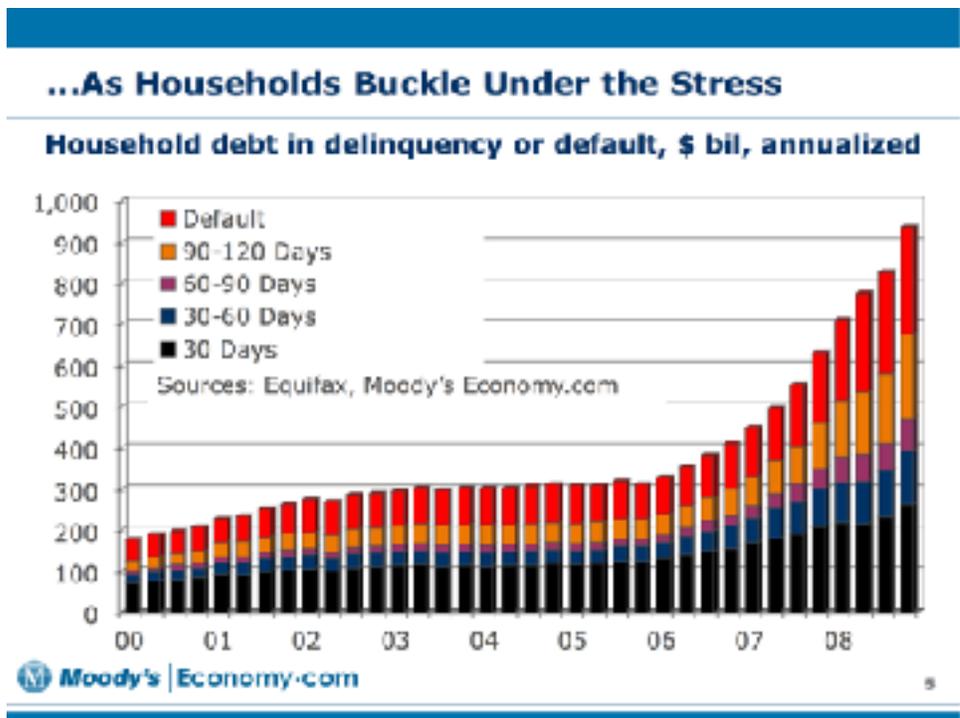
The downturn is not only very severe, it's also very long, now longer than the average recession since World War II. But the hallmark of this downturn is how broad it is - across every occupation and across every region of the country. The states in red are in recession. In fact, we just updated this with data through December and as of December, Washington state, New Mexico, Maryland and New Hampshire are now in recession. You can see only the farm belt and energy producing areas of the country are still avoiding recession - not that they're growing quickly, but they're avoiding recession. And that probably won't last for very long with the collapse in energy commodity prices and now with falling exports of ag products. Those economies are going to weaken measurably as well.

This is the broadest downturn we've experienced since the Great Depression and it adds to how disconcerting things are. In past recessions, there were parts of the country where things were okay. So if you lost your job, let's say, in Michigan, you could move to Florida. If you lost your job in California, you could move to Vegas or Phoenix. But now you lose your job in Michigan, there's nowhere to go. You lose your job in California, you certainly can't move to Vegas. And so that's

very debilitating - psychologically very scarring and disconcerting. I think that's the key reason why this period feels as dark as it is. There's really no obvious thing to do to respond to our financial problem.

Another hallmark of the current downturn is that its genesis doesn't lie in over-levered businesses. Every recession we've experienced since World War II has been the result of over-levered businesses that took on too much debt during the good times. When the economy didn't stick to script, the businesses had to pull back on their investment and hiring. That caused consumers to rein it in a bit and you had a recession.

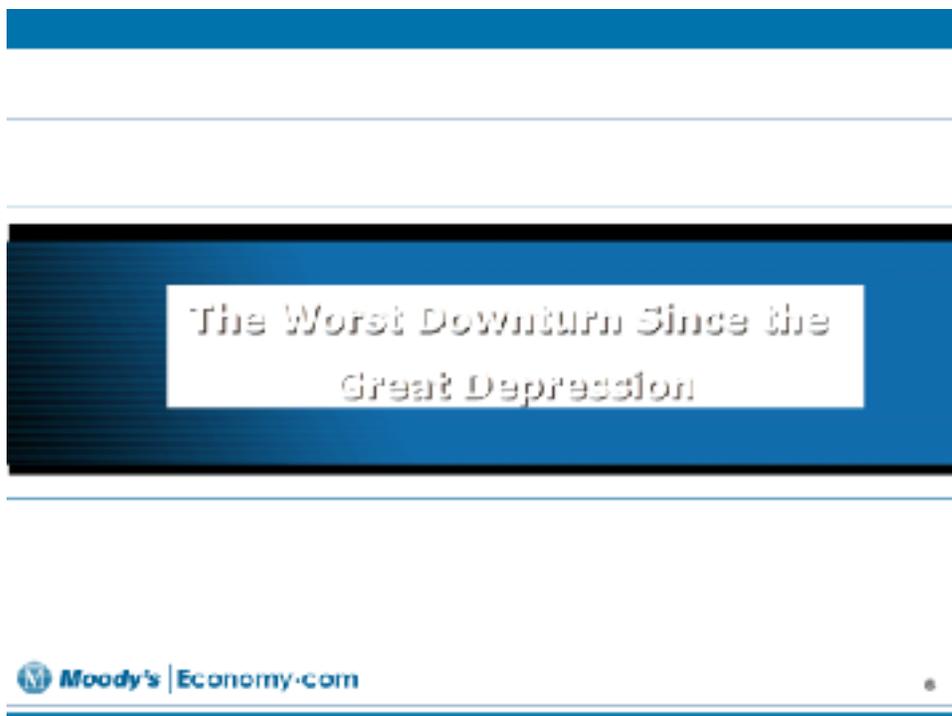
Household debt



This downturn is driven by over-levered households. And you can see the stress here. This shows the dollar amount of household liabilities that are in delinquency and/or default. This is based on credit file data. We take a randomized sample of all the credit files in the country at the end of every month from Equifax. The last data point in the chart is for the last week of December, so it's timely data. And as you can see, as of the last week of December, over \$900 billion in liabilities were having a problem. This is mortgages, student loans, credit cards, everything. That's over eight percent of all household liabilities and that is a record high. I've never seen anything

like it and delinquencies are jumping across all product lines everywhere across the country. Of the 380-plus metropolitan areas in the country, there is one MSA where delinquencies and defaults are actually not rising: Bismarck, North Dakota. All 640,000 North Dakotans are doing okay, thank you. But outside of that, extreme stress.

Worst downturn since the great depression



The current situation is as bad as I've ever seen it. I've been a professional economist for a quarter century almost and I've not seen anything like it. It's dramatic and the outlook is very difficult, particularly for '09, and 2010 will very tough as well. And it will go down as being the worst downturn since the Great Depression. Now, there's no technical definition of depression. In my nomenclature, depression is unemployment in double digits for any extended period of time. I don't think we'll quite get there, but it's going to pretty close. It's going to be pretty close. The unemployment rate is already 7.2 percent. In January, it will probably jump to seven and a half. Double digit unemployment is certainly a possibility.

The Worst Downturn Since the Great Depression

Recessions since World War II

| Peak | Trough | Duration in Months | | Peak-to-Trough % Change | | Jobless Rate | | |
|------------------------------------|-----------------|--------------------|----------------|-------------------------|--------------------|--------------|------------|------------|
| | | Recession | Expansion | Real GDP | Nonfarm Employment | Low | High | Change |
| | | Peak to Trough | Trough to Peak | | | | | |
| Dec 2007 | Sep 2009 | 21 | -- | -3.0 | -3.9 | 4.4 | 9.1 | 4.6 |
| Mar 2001 | Nov 2001 | 8 | 120 | -0.4 | -2.0 | 3.8 | 6.3 | 2.5 |
| Jul 1990 | Mar 1991 | 8 | 92 | -1.3 | -1.5 | 5.0 | 7.8 | 2.8 |
| Jul 1981 | Nov 1982 | 16 | 12 | -2.9 | -3.1 | 7.2 | 10.8 | 3.6 |
| Jan 1980 | Jul 1980 | 6 | 58 | -2.2 | -1.3 | 5.6 | 7.8 | 2.2 |
| Nov 1973 | Mar 1975 | 16 | 36 | -3.1 | -2.7 | 4.6 | 9.0 | 4.4 |
| Dec 1969 | Nov 1970 | 11 | 106 | -1.0 | -1.4 | 3.4 | 6.1 | 2.7 |
| Apr 1960 | Feb 1961 | 10 | 24 | -1.3 | -2.3 | 4.8 | 7.1 | 2.3 |
| Aug 1957 | Apr 1958 | 8 | 39 | -3.8 | -4.4 | 3.7 | 7.5 | 3.8 |
| Jul 1953 | May 1954 | 10 | 45 | -2.7 | -3.3 | 2.5 | 6.1 | 3.6 |
| Nov 1948 | Oct 1949 | 11 | 37 | -1.7 | -5.1 | 3.4 | 7.9 | 4.5 |
| Average for past recessions | | 10 | | -2.0 | -2.7 | 4.4 | 7.6 | 3.2 |

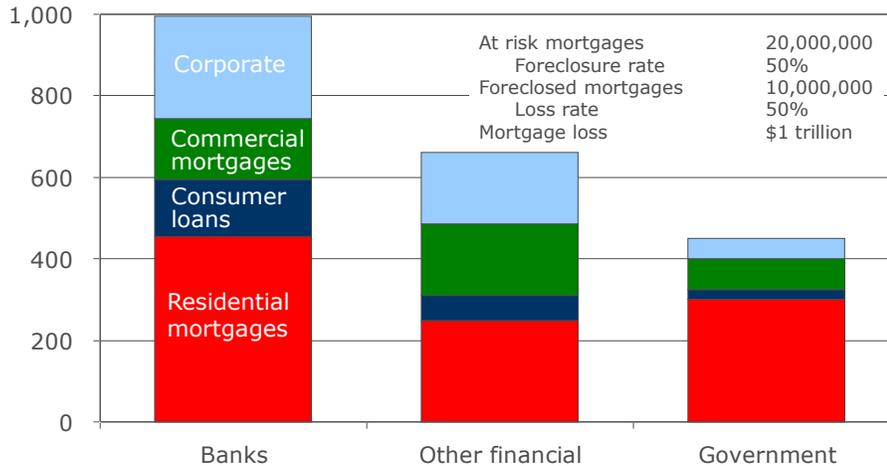
Sources: NBER, BEA, FRB, BLS, Moody's Economy.com

This is how the current recession stacks up against every recession since World War II. You can see, I do expect the recession to end in September 2009. Not that the economy is going to come back quickly. That means that the outright declines in economic activity will abate in September and then the economy goes nowhere for another year after that. It really will not be until 2011 before we get any measurable growth. And it really won't be until 2013 before the economy returns to full employment. So we've got four years of various levels of pain. First, '09 is going to be very painful. 2010 is just going to be painful. 2011, uncomfortable and it really won't be until 2012 and 2013 before we get back to full employment. Nonfarm employment, peak to trough, down about four percent - that's over five million jobs peak to trough loss. We're about half-way done, through the job losses and as you can see, I think the unemployment rate will peak at just over nine percent. That probably will be in the spring of 2010.

Financial system losses

The Financial System Has Much More to Digest

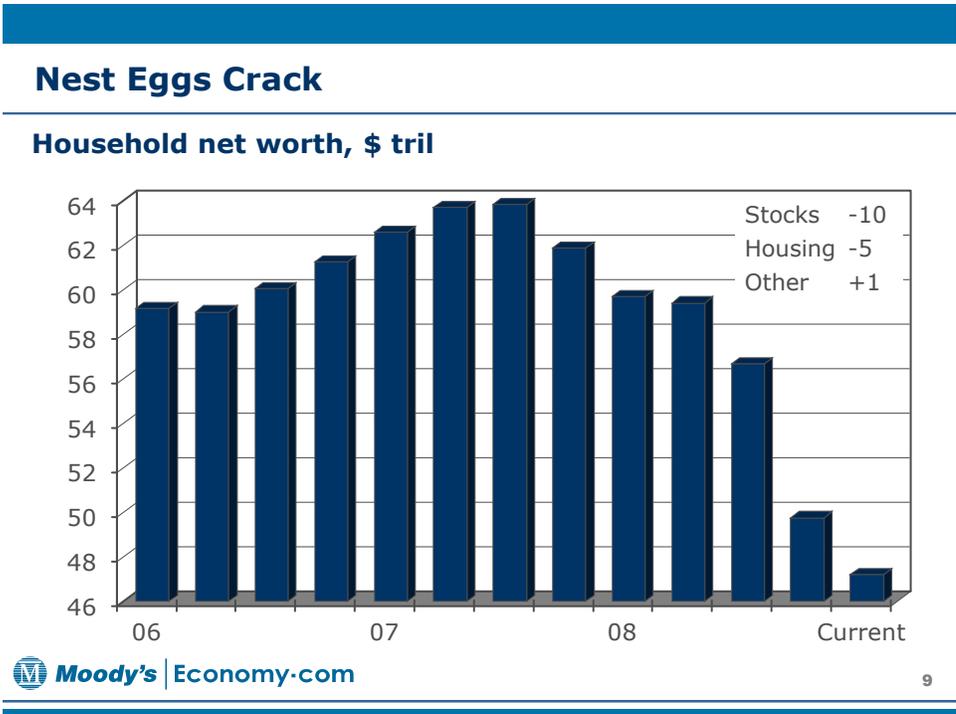
Projected losses on assets as of 2008Q3, \$ bil



The economy has some major problems. I'll mention a couple of them. The first is the mess in the financial system. The system is in disarray and you can get a sense as to why here. These are my estimates of the losses on assets the financial system has got to digest on its balance sheet as of '08 Q3 - really September of 2008 - in billions of dollars. The banking system has about a trillion dollars of losses to take. "Other financial" - that's hedge funds, pension funds, insurance companies - a bit over 600 billion. "Government" - that's FHA, Fannie and Freddie - a little over 400 billion. You total up the bars. That's about \$2.2, \$2.3 trillion. The system has written down about a trillion dollars so far on these assets. That means it has \$1.2 trillion more to go and that's why there's still chaos and why there's no credit. The money that was infused into the system in TARP one - the \$350 billion was helpful in that it forestalled the complete collapse of the system. We'd be in measurably worse shape without it, but it's certainly not enough to fill this hole and therefore there is no credit, and there won't be any credit until we fill the hole. Of that \$2.2 trillion, one trillion has already been written down. We've got 1.2 trillion more to go. Six hundred billion of that is in the U.S. financial system. The other half is in the global financial

system. That's not our problem - directly. But \$600 billion is our problem and that is what the administration and Congress are going to have to fill at some point over the course of the next couple of years - if my projections are right. It could be I'm wrong, and then it's worse and therefore the costs will be even greater. This is a consensus view of the losses. There are economists, as you know, that are darker who are expecting more costs. This is a weight on the economy that will not lift quickly. And therefore, credit will not start flowing quickly and without credit, the economy can't function properly. So, the economy will struggle.

Household net worth losses



Big problem number two is we are all a lot less wealthy and we will be a lot less wealthy for a long time to come. This slide shows household net worth. This is the value of assets less the value of liabilities. It peaked about a year ago at \$64 trillion, and we're now down to, say, \$46-\$47 trillion. That's a lot of lost wealth and you can see how we get there with the numbers in the northeast quadrant of the chart. This loss of wealth is a problem, but what makes it even more problematic is that we all now believe that it's not coming back. Anyone believe their house price is coming back? Anyone? You think your

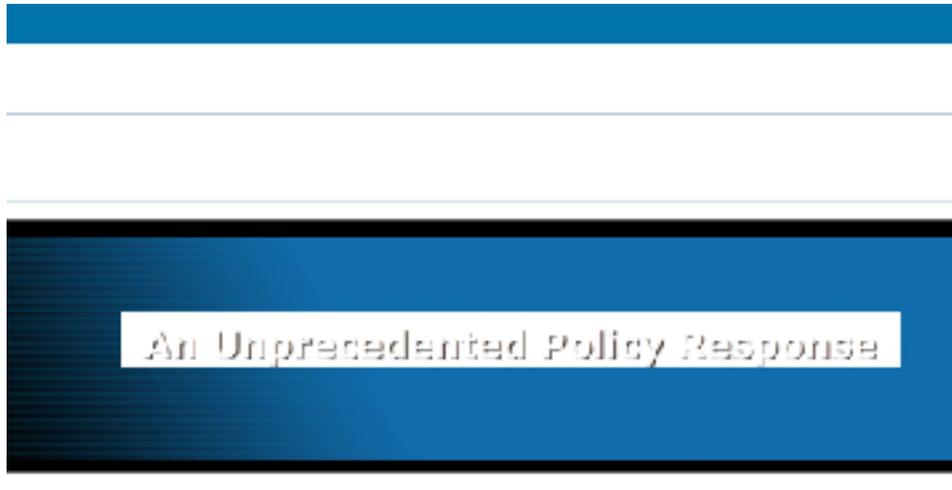
housing is going to come back anytime soon? You'd be wrong. It's not coming back to the previous peak anytime soon, which was now three years ago. And stock values - well, they'll come back more quickly. I think we're all coming to the conclusion they're not going to come back fast. So if you are less wealthy and believe that your nest egg is going to be diminished for a considerable period, you pull back and you pull back on your spending very aggressively. And that's what households are doing - not only lower middle income households, but now upper income households are aggressively changing their behavior. That's why Nordstrom and Neiman Marcus and Tiffany's, and folks in higher education, too, are going to have more difficulty as people have difficulty paying for these things. Their nest eggs are diminished.

This is particularly difficult in today's economy because of the demographic composition of the population. Here's the key statistic of the day. In fact I'll ask you. What is the largest single year age group in the country? There are more of these folks than any other age group. Fifty. Fifty is the largest single year age group. Abstracting from the 51 year olds and the 49 year-olds, what's the second largest single year age group? This is very important to you. Twenty. Twenty - the kid of the 50 year-old. And if you're a fifty year-old and your nest egg is diminished, you're panicked. You're panicked because you don't have a whole lot of time to figure it out because you have to pay for your 20 year-old's college education and then you've got to pay for your retirement right after that. So, what that means is you ramp up your saving very aggressively and that's what we're in the middle of. Consumers are ramping up their saving and that means a collapse in consumer spending. So that's a problem and that doesn't go away quickly. That's something that takes a while to repair itself.

I'll mention a third problem and that is we're now in the middle of a global downturn for the first time since the early 1980s. It began here, but it now has bled everywhere. Europe is in deep recession. The Japanese downturn is almost mindboggling - GDP down more than 10 percent in Q4 '08. And now emerging economies are struggling. Brazilian industrial production is down 15 percent year over year. Even China is slowing. So, we're in a very severe downturn and as a result our exports are falling. So consumers are pulling back. Businesses are retrenching. We have no exports. The only source of growth now is government. That's the only source of growth in the economy. So these are very serious problems that don't abate quickly and as a result, the economy will struggle for a considerable period and '09 will be particularly difficult. Are you depressed? Thoroughly depressed. So depressed you're wondering how in the

world does he think September 2009 is going to be the end of the slide.

Unprecedented policy response

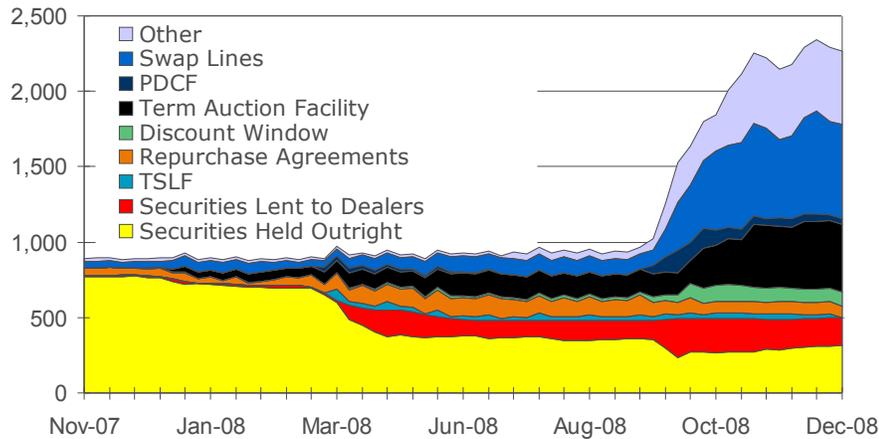


I'm going to try to lift you a little bit at this point. And this is where my political leanings come out. You should know that I was a McCain advisor, but I am a registered Democrat. So I've got all my bases covered. And I believe in the power of government, particularly in times of crises. There's no other resource that's going to step in and help mitigate this downturn and get us out of this downturn. I feel increasingly optimistic about the policy response and the success of that response. I'll just go through some of the things that are being done. First is the Federal Reserve is being very aggressive. The funds rate target is now zero and, according to the Fed, will be at zero for as long as it takes to get the system going again. The idea is that will bring down long-term interest rates, and I think that's been somewhat helpful. But it's not enough and now the Federal Reserve is literally printing money. This is credit easing, quantitative easing. The Fed is buying anything and everything they think matters that would help the financial system. I mean they'd buy a Picasso painting if they thought it really would make a difference.

Printing money: Fed's balance sheet

Printing Money

Federal Reserve's balance sheet, \$ bil



Moody's Economy.com

11

And you can see that here. This is the value of the assets on the Federal Reserve's balance sheet. From November of '07 through August of '08, they didn't change the size of the balance sheet, but they changed the composition. They were lending their Treasury securities in an effort to help provide liquidity to other parts of the credit markets, to try to get those parts going. That didn't do the trick - particularly when the financial crisis devolved into a financial panic, which is what happened in early September when the Federal Government took over the GICs and let Lehman fail. And since then, they've been engaged in this credit easing where they're printing money and buying up assets - securities - and trying to get the system moving again. You had a question.

Fed mistakes

SPEAKER: Don't you think that slide tells you a lot? Because clearly the bond market, or large pieces of it, had shut down by the summer of '07 - especially in structured products - and you couldn't get anything done after August of '07 and the Fed really didn't expand its balance sheet for substantially more than a year after that.

MR. ZANDI: Yes. That's correct. And I do think the Fed deserves some criticism for being a little slow in their response. In all fairness though, I think up and through early September, the financial crisis, while severe, was manageable. I think it devolved into something unmanageable in early September because of a series of policy mistakes that were made during the month, beginning with the takeover of Fannie and Freddie; followed by the failure to resolve Lehman Brothers without allowing them to go into bankruptcy; followed by the rather poor selling job of TARP by Treasury Secretary Paulson and Chairman Bernanke; followed by the Congress' inability to pass that bill which resulted in complete collapse in the equity market; followed by Secretary Paulson's backing away from asset purchases in November, which pretty much put Citigroup out of business. So, it was a string and series of policy mistakes.

Now, it's harsh to be too critical because these were all being done in the heat of the battle, and given the unprecedented nature of what they were going through. But, I think, that is why this went to a whole other level and why the Federal Reserve has had to respond to the degree that it has had to since. But, my broader point here is now the Fed is fully engaged. They're buying commercial paper. They're buying Fannie and Freddie's debt. They're buying the mortgage securities that Fannie and Freddie insure. They will soon be buying long-term Treasury bonds. I'm fairly confident that they'll be buying private label residential mortgage securities, commercial mortgage securities. They would be buying muni bonds, but they can't by law. If the muni market does start to really run into trouble and we see some defaults, I think they'll probably set up some facility funded by the Treasury and start buying municipal bonds to shore up that market because it would be complete chaos if that market fell apart, which I know is important to you. And if things really didn't improve, they would start buying corporate equity, which is what the Japanese are doing right now. So I think this is limitless.

Risk of inflation

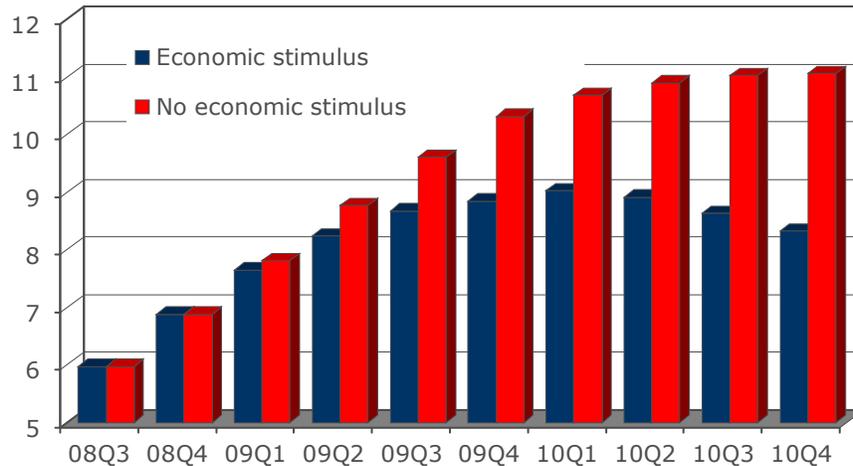
The Fed now is going to continue on this path until it begins to reap benefits and they will win the day. Now there is a legitimate concern that this debases the currency, that it leads to inflation. I am less concerned about that. I don't dismiss it as an issue, but I'm less concerned because every economy on the planet is doing roughly the same thing at this point. So we're pumping out a lot of liquidity and if the dollar falls in value, that means some other currency has to rise in value and I just

don't see it. I don't see anyone going from the dollar to the Euro or the dollar to the Brazilian Real or the Canadian Looney. I just don't see it.

Secondly, I don't think we get inflation taking off here, which would really be a fundamental reason for a collapse in the dollar because we're going to have such high unemployment for so long that there is going to be no wage inflation. And without strong wage growth you don't get businesses raising prices in the context of a bad sales environment. And then thirdly, a lot of these facilities that the Fed is using to print money and to pump up liquidity are very short-term in nature. They are three month facilities, and they're designed so that when the private markets start to improve, the cost of borrowing from the Fed rises very quickly and the liquidity in the facilities evaporates quickly. You can see that in the CP market. The CP facility has worked quite well and, in fact, the value of the assets on their balance sheet are now falling. So I am not overly concerned about that. Just one academic point about that - you know there's a lot of debates among economists. Endless debates. One of the key debates is, is it money supply growth that generates inflation or is it essentially tight capacity in the economy? Which is the better explainer of near-term or intermediate-term inflation? Well, we've got money supply going through the roof and we've got an unemployment rate that's rising very rapidly. We're going to settle that debate, which is one good thing that may come out of all of this. So I don't dismiss the risks, but I think they're small compared to the risks of not responding aggressively.

A Massive Economic Recovery Package...

Unemployment rate



Fiscal policy makers are also very engaged. They're going to do three key things very quickly. Thing one is stimulus. In my view, if I were king for the day, I'd make a different package, but I think it's a reasonably good package and you can see the economic benefit here. The blue bar represents the unemployment rate with the House stimulus package - and this assumes my most likely outlook for the economy - up nine percent, peak unemployment rate in early 2010. And you can see what the world would look like in the red bar. That's the unemployment rate without any stimulus. That's double digit unemployment and that's depression - again, in my nomenclature. And it's rising through the end of 2010. So, it's not the best plan, but it is good enough. And it's important to get it done quickly so that it also helps to shore up confidence. Now, if I were king for the day, I'd make it bigger, because I think this is a very large economic problem and we have the capacity to borrow at this point in time because no one else is borrowing and interest rates are low and global investors are still buying our debt. And we should take advantage of that. And I would increase it with tax cuts - not because tax cuts are as economically efficacious as spending. Spending is better, particularly infrastructure spending, but it takes a long time to get

infrastructure spending into the economy - 2010, 2011, 2012. If I give you money to go fix a lab, it's not going to happen quickly. It's going to take a while. Tax cuts are less efficacious because people will save some of that and repay debt - which is not a bad thing, but not good for the economy near term. But, it can get into the economy very rapidly. I'd make those tax cuts temporary, but big - payroll tax holiday, some kind of tax credit for home purchases to help the housing market - those kinds of things.

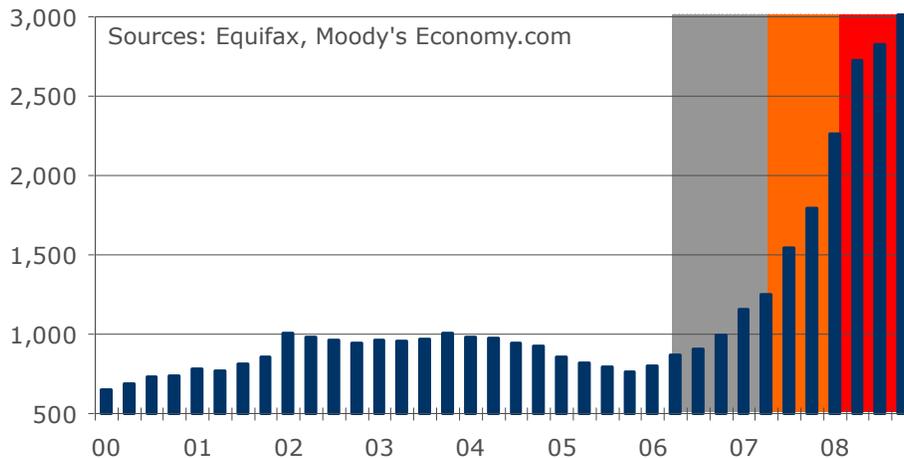
Financial stability plan

Second thing that the administration and Congress will do will be a financial stability plan. That will be their effort at filling that \$600 billion hole. Now, they only have a \$300 billion in TARP money left, so they're going to need more money. But they'll take that \$300 billion and they'll use part of that to capitalize a bad bank - it's being called a bad bank or an aggregator bank - that would go out and buy up troubled assets of financial institutions at some price probably determined by a model. And then use that as a way to take those bad assets off the balance sheet of the institutions so that it helps solve their capital shortage problem and they can start to extend credit. But, they're going to need more money. The \$300 billion that's remaining in TARP funds isn't going to be enough, so they'll be back in front of Congress asking for more.

Foreclosure mitigation plan

...And Large Foreclosure Mitigation Plan

First mortgage loan defaults, ths, SAAR



Moody's Economy.com

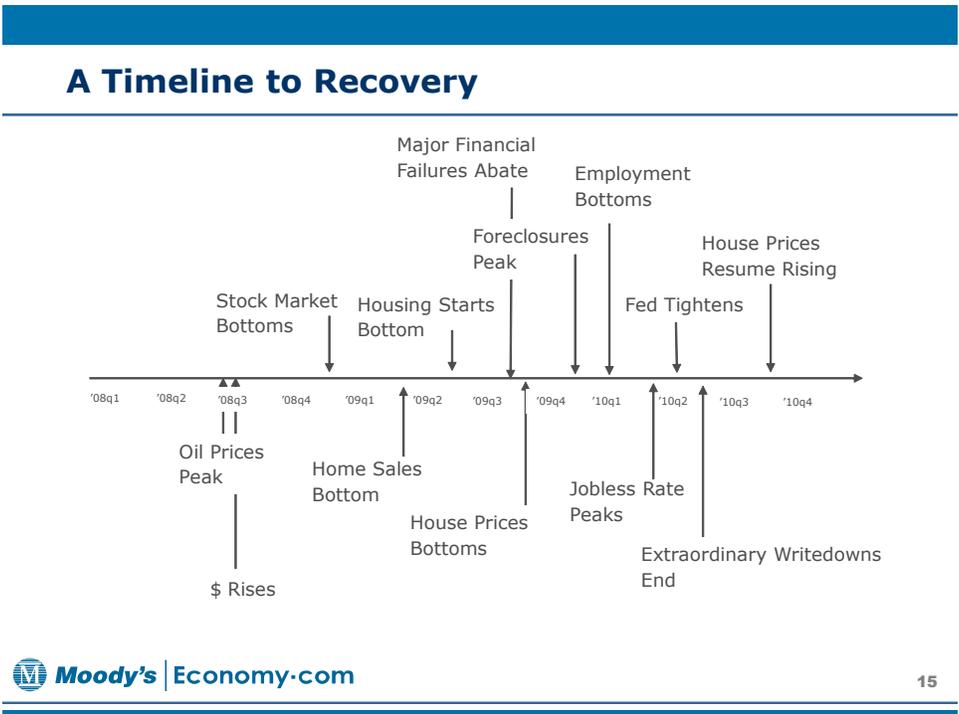
13

A third big thing is a foreclosure mitigation plan. You can see the motivation and the need for it here. This slide shows the number of first mortgage loan defaults - the first step in the foreclosure process. Again, this is based on credit file data from Equifax. The last data point is the last week of December. We're running at three million annualized defaults. And as I said, all delinquency rates are rising rapidly, so this is going to stratospheric as we make our way into '09 and 2010 unless there's a policy response. Mortgage owners and servicers are trying to modify loans by reducing interest rates on loans and extending the term of the loan to reduce the monthly payment. But those loan modifications are failing. Over half of the modifications that were done in the first part of '08 had already redefaulted by the end of '08. Redefaulted. And the reason is because so many people are now underwater on their mortgage, with no prospect of getting above water anytime soon. So, if there is any slight disruption to their income, or even if they spring a leak in their roof and they need to put another \$5K, \$10K in their home, they're not going to do it. It makes no economic sense and they're going to walk away and go rent the home next door that's empty because it was foreclosed on and rent it for a monthly payment that's much less than their

mortgage payment. So we need a foreclosure mitigation plan that involves modifications of loans that include write-downs of mortgages. Now, there's going to be a lot of complaints about fairness and moral hazard and adverse selection, but we're going to have to swallow that pill and we're going to have to have write-downs. That probably will be another \$100 to \$200 billion. So, \$600 billion to help the banking system, another \$100 to \$200 billion in write-downs - so seven to eight hundred billion dollars to go there.

We'll get those three big things, and I think if we get them relatively soon - spring, early summer - that will be sufficient to stem the slide in the economy by the end of this year. It won't be enough to get the economy growing again in any significant way though until probably 2011. So we've got a long way to go. It's going to be very painful.

Timeline to recovery



Now, let me summarize all of this with my timeline to recovery. I'm putting it all on the line here for you. '08, Q1 through 2010, Q4. And some of these things have already happened, so I can't be wrong. Oil prices have peaked, they're down. The only good thing that's happened out of this crisis. And this is not insignificant. If oil stays below \$50 a barrel,

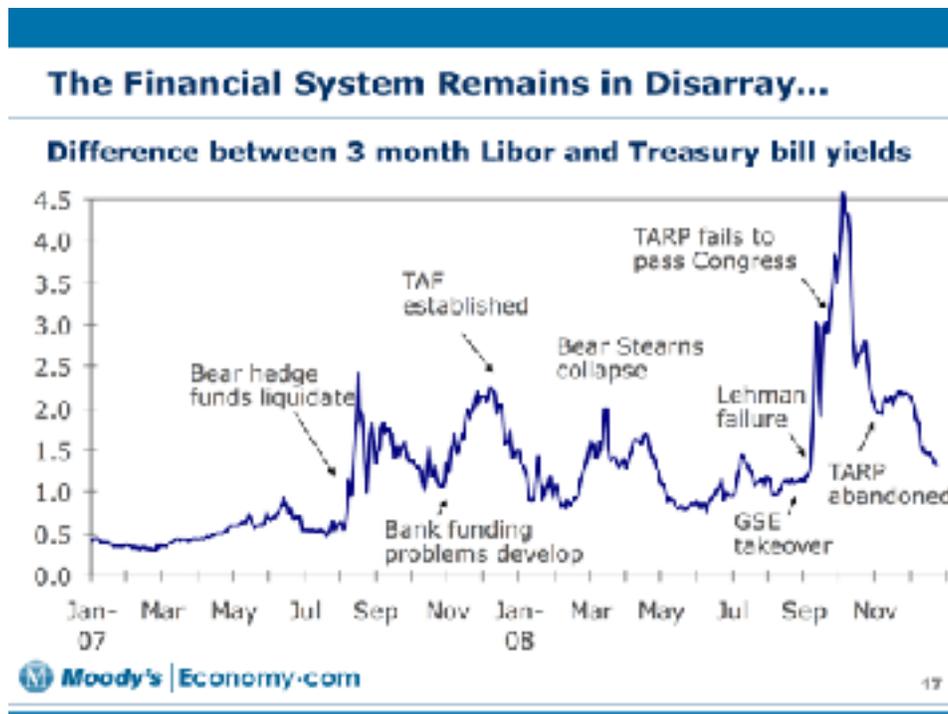
consumers will spend a couple hundred billion less on energy this year - '09 - compared to '08. That's measurable and that's helpful. And I think that's a reasonable bet. Dollar rises - that's not great for trade and exports, but it is positive in the sense that global investors are still buying our debt and if they weren't, we'd be in a heap of trouble. Fortunately they are. Stock market bottoms. Now don't go out and buy stock. My point here, though, is that the market will go up and down and all around, but I think when we take a step back - a couple, three years from now - we'll see that we can draw a line in the S&P 500 from November to say March, April, May of this year and that will look like a bottom. So, I think we're there, that the market is discounted pretty much by the bad news I've laid out for you. I think the market will start to come back probably summer or fall of this year as it anticipates a somewhat more stable economy in 2010. But it really won't be until mid-2010 before we start to get returns that are something we feel more comfortable with - kind of high single digit returns. In the long run, I wouldn't expect returns in the equity market to be much more than six, seven percent. That would be what I would use as a long-term expectation for equity returns.

Home sales bottoms - that's coming up. That's a lot of distress sales, a lot of foreclosure sales. Housing starts bottom - we're already at a post-World War II low - sometime this summer. Major financial failures abate - not that there won't be a lot of financial failures, but they'll mostly be smaller institutions after this point in time. I do think with this financial stability plan that is put forward, there will be some failures - meaningful failures - maybe not in the classic sense where the government comes in and puts an institution in receivership, but in a Citigroup sense where you basically wipe out shareholders. I think even with marking to market model, you're going to find some institutions didn't write down appropriately and when they do write down, they are going to be basically insolvent and as a result they're going to get wiped out. The shareholders are going to get wiped out. I don't think they're going to wipe out the debt holders, but the shareholders are going to get wiped out.

Housing prices bottom. Foreclosures peak. Employment bottoms. That's early 2010. There's my nine percent peak unemployment rate. Fed tightens. So we're at a zero percent funds rate target up into this point in time and they begin to tighten this - in the summer of 2010 - go from zero to something positive. That's where the \$2.2 trillion in extraordinary write-downs are over. House prices resume rising. So here's how it's going to all go.

This is the script. Let me just say before I move on, this is all subject to revision.

What to watch: TED spread



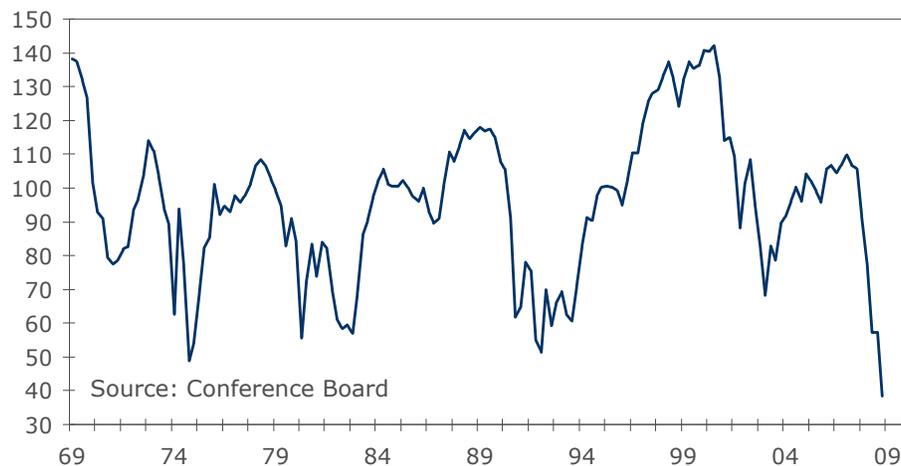
What to watch? Let me give you a few things to watch, to gauge whether everything is sticking to script. Thing one - this is the best barometer - this distress in the financial system, the TED spread. This is the difference between LIBOR and Treasury bill yields. LIBOR is the rate banks charge each other for borrowing and lending to each other. T-bill rates are obviously risk free. I've chosen a three month LIBOR and a three month T-bill difference. I'm showing it from January of '07 through the most recent period and I've identified different points in time in the crisis. And you can see that the crisis really began in the summer of '07 and it was ebbing and flowing all the way through early September. And you can see at that point the crisis devolved into something measurably different with the takeover of Fannie, Freddie and the failure of Lehman. Things have settled down. Things are moving in the right direction. The TED spread - the difference between LIBOR and T-bill - is now down to 100 basis points. That's very good, but it's not normal. Normal is 50, 75 basis points and I expect that we should get there over the course of the next three, six

months. If the spread starts to widen out again, that's a problem. It means that things aren't going well. The financial stability plan isn't doing what it's supposed to do. It means that Congress isn't coming up with the additional money that will be needed to fill the hole in the financial system. Bad things are happening. So this is a very important indicator to watch.

What to watch: consumer confidence

...And the Collective Psyche Shattered

Consumer confidence, 1985 = 100



Second key indicator is consumer confidence. One of the reasons why this is such a difficult period to forecast and why things are so disconcerting is that people are panicked. I use that word a lot and I've chosen that word carefully. It denotes an element of irrationality to what's going on. People are just literally running for the door and as long as that continues, all the risks are to the downside and you can't forecast anything with any degree of certainty. Or, I should say, the level of uncertainty is extraordinarily high. And you can see confidence continues to evaporate. This is an index based on a survey done of consumers every month. In January it hit a new low. Consumer confidence is not a very good measure of economic conditions in normal times. It doesn't lead. It doesn't lag. It's not very useful. But it is incredibly useful at turning

points in the economy. A couple, three months before recessions, confidence caves in a measurable and consistent way. And at several months before the beginning of a recovery or an end to the recession, confidence begins to improve. So, if I'm right and my script is correct, then confidence should bottom out sometime in May, June, July - and we should see a notable improvement in confidence. It will still be low by historical standards, but it should improve. If not, if confidence continues to remain low or continue to evaporate, then we've got a problem. Things are not going to script and the economy will continue to weaken.

I have a host of other indicators, but if I were going to pick two that I were going to watch very carefully, it would be those two. One is an insight into what is going on in the financial system. One is providing some insight into the collective psyche and how people are viewing what is going in the economy.

Outlook for higher education

So, hopefully I've ended on a slightly more optimistic note, giving you a reason to believe that things are going to turn. It's going to be tough over the next 12 months, but I am hopeful that by this time next year we'll be in a measurably better place. Now having said all that, it's hard constitutionally for an economist to end in a positive way. We just don't do that well. Let me point out to you all here that I think your difficulties could last longer. That even if equity returns stabilize and asset values stop their slide, I don't think asset values will come back quickly. So your endowments are down and they're not coming back fast. Secondly, all of those families that had wealth or were able to borrow against their home to finance tuition, that's going to be very tough to do for a long time to come. And third, even though state and local governments are going to get some much needed relief from this stimulus, and that will take a little bit of pressure off, their problems aren't going away fast. Their revenues and expenditures are going to be under significant pressure for a long time and I doubt we'll get a stimulus two. And if we get a stimulus two, it probably will not include much help for state and local government. So, you're going to get a bit of a respite over the next six to 12 months, but I wouldn't count on anything after that. You're on your own. So, when we get out to 2010 and '11, while the broader economy will have more life to it, your troubles will continue on. It's not going to get measurably easier any time soon.

BEGIN Q&A/DISCUSSION

State and local tax increases

MS. BROAD: Questions for Mark. Tim.

SPEAKER: To what extent though would tax increases at the local and state level short circuit the recovery in specific areas of the country?

MR. ZANDI: That certainly would be very counterproductive. I mean that would just pile on. The logic behind having aid to state and local governments in the current fiscal stimulus plan is that it forestalls what would be immediate cuts in programs and potentially higher taxes. And that would be extraordinarily counterproductive at this point. That is the basis for this view that we need aid to state and local governments. And I think that will be a big part of the stimulus plan.

Infrastructure spending vs. tax cuts

SPEAKER: This is a little dangerous, but I want to take issue with one of the things that seems to be the common lore, which is that infrastructure takes a long time to develop and tax cuts can be realized very efficiently. Many of the higher education leaders with whom I'm working said they could sign contracts next week for infrastructure development, and that they have contractors talking to them daily about when they could start things because the industry is so depressed right now that there's lots of equipment and lots of human capital to be put to work tomorrow. Now it may be that the money couldn't get out to them. I don't know. But it seems to me that that would be a reasonable assumption in normal times. But we're not in normal times and I actually believe that there's a pent up capacity within the construction industry to respond rapidly - both to capital facilities and to other forms of infrastructure like highways and bridges. There's a lot of stuff that was actually moth balled and is just sitting there. I think the response could be in '09 - certainly in '10 - and it doesn't have to be in '11. I've got a lot of presidents telling me they could go tomorrow. They've got contractors who could show up tomorrow with pickups and trucks.

MR. ZANDI: I don't disagree. I think infrastructure is an important part of stimulus. Given the environment that we're in, given that we've lost so many construction jobs and there's such capacity in construction and manufacturing, we can respond more quickly. Moreover, there has been a lot of thought put into an effort to come up with shovel-ready projects because this has

been the rap against using infrastructure stimulus from time immemorial. There's been a lot of effort in that regard. So I don't disagree with you. There is a lot of infrastructure in the stimulus package. If you total up the spending on the kind of infrastructure that the Romans built - roads and bridges and dams - that's about sixty billion. If you throw in labs and internet and electric grid and alternative energy, you're up close to \$200 billion. So, that's not insignificant. I do think there is a reasonable concern that you could get all of these things going quickly enough in '09. I think that's reasonable to worry about that and that the risks are very high because certainly historically, that has not been the case. And so given the high level of uncertainty and given the risks that we face if we don't do it right, I think the tax cut approach is the more logical approach at this point. And that we should go down that route because that's a more certain approach to getting money into the economy in '09 - now, when the economy needs it.

SPEAKER: Certainly our experience. We've passed a \$3 billion bond in North Carolina in 2000 and weeks after election day, the dot bomb had turned the economy on its head and we found that we could get very attractive contracts. It served in a countercyclical way for the state and we really did get a lot of construction done within 12 months.

MR. ZANDI: Any other comments? Yes, sir.

Infrastructure spending priorities

SPEAKER: There's been a lot of talk about not wasting an opportunity, and this is a chance for America to rebuild the foundation for the next 50 or 100 years. There was a *New York Times* article on Sunday about different industries we really should invest in, including education, health care. I'm currently listening to Tom Friedman - *Hot, Flat and Crowded* - and he has his "project green". Which industry do you think we need to invest in to really build a platform to recover from the dismal slides you just presented to us?

MR. ZANDI: Well, my answer would to diversify the kinds of projects you undertake. The infrastructure aspect of the stimulus has come under tremendous criticism for the fact that there's a potpourri of projects - everything from wind turbines to health care information systems. My perspective on that is well, we don't really have a good grip on what will work and what won't work. What has the big bang for the buck, what doesn't have the big bang for the buck. What will reap benefit in the long run and what won't reap benefit in the long run. If you have a high level of uncertainty, any investment manager

will say diversify. I would diversify and that's exactly, in my view, a strength of the stimulus, not a criticism of the stimulus. It's not been sold that way, and there may be various reasons for that, but for me that's a strength, not a limitation.

The other thing is there are diminishing returns. If I put all my money into highway construction, at some point I'm going to be building highways that have no economic return. That's what the Japanese did. Right? If I build some highways and I build some bridges and, by the way a little bit of electric grid, then the returns you get on those initial projects should be pretty high. That's low hanging fruit. I mean, North Carolina has a specific idea for that money up front, but if I asked you if I give you another three times as much money, you could spend it, I know you can - but it's going to be, oh, well, what about this. It's not going to be the same return because you're going to be pushing the envelope. So I also think it makes sense to diversify because you get higher total return by doing it that way.

The third thing is, some of these things you can use as pilot projects. Digitizing healthcare makes sense, right? It's worth trying. But we don't really know. If you spend a couple, three billion on alternative energy, or on expanding the electric grid, or the internet backbone into rural areas, and you find oh, my gosh, this really works - then that was a worthy pilot project to take. That helps you in the long run. So, these are arguments that I'm not hearing, and they're losing the rhetorical battle and they need to be more aggressive in their retort. They're not arguing these things that I think are really important with respect to the infrastructure.

Investing in the U.S.

SPEAKER: So can we come out of this with the understanding that the U.S. is the strongest and safest place for global investment?

MR. ZANDI: It is. And I'm not the only one saying it. Global investors are saying it. Just think about every time there's another bank failure or something goes wrong anywhere on the planet. What happens to 10 year Treasury yields? What happens to the value of the U.S. dollar? And then what happens to the Euro? What happens to oil prices? I mean everyone knows that if there's trouble - even though we caused the trouble - you come here. And as long as we are fortunate enough to be the beneficiaries of that, we'll be okay. This is a very fortuitous position to be in, but we have a responsibility, too, and we've

got to work hard to preserve that - and that means we've got to make good decisions. And we've got to make them fast.

MS. BROAD: Thank you, Mark.

MR. ZANDI: Thank you.