

**The Economic Crisis - One Year Later
Forum for the Future of Higher Education**

**The Brookings Institution
Washington, D.C.
March 24, 2010**

**Taking Stock of Where We Are
Mark Zandi, Moody's Economy.com**

Introduction

Jack DeGioia: It's my pleasure to introduce our next speaker, Mark Zandi, the chief economist of Moody's Economy.com, who will be speaking to us about where we are in our recovery from the financial crisis and the outlook for the near future.

Mark's commentary and his ability to engage in dialogue regarding some of the most significant policy questions that we face today, without, I think, ideological bias, has made him a trusted advisor to policymakers and an influential source of economic analysis for businesses, journalists, and for the general public.

As you know, he frequently testifies before Congress and is often cited in leading journals like the *Wall Street Journal* and the *New York Times*, *Business Week* and *Fortune*, and often on our major news networks too. Since the onset of the crisis his analysis has never been more critical to our nation's efforts to craft a measured and appropriate response. His recent work includes a study of the outlook for regional housing market conditions, the determinants of personal bankruptcy, the location of high technology centers, and the impact of globalization and technological change on real estate markets.

Last year, just about this time, we had the privilege of Mark joining us and offering his perspective at that time. Over the course of the last year, as I've tried to understand a lot of what was coming at us, I know that I benefitted greatly from the framework that Mark provided to us in our first meeting in February of 2009. It's a privilege to have this opportunity to welcome him back.

MR. ZANDI: Thank you. I'm going to make four broad points in my prepared remarks. Point number one is that the recession is over, economic recovery has begun.

The Great Recession is Over

The Great Recession is Over...

Recessions since World War II

		Duration in Months		Peak to Trough % Change			Jobless Rate		
Peak	Trough	Recession Peak to Trough	Expansion Trough to Peak	Real GDP	Industrial Production	Nonfarm Employment	Low	High	Change
Dec-07	Aug-09	20	73	-3.2%	-16.7%	-6.2%	4.4%	10.2%	5.8%
Mar-01	Nov-01	8	126	-0.4%	-6.0%	-2.0%	5.6%	6.3%	2.0%
Jul-80	Mar-81	8	92	-1.3%	-4.3%	-1.5%	5.0%	7.6%	2.8%
Jul-81	Nov-82	16	87	-2.9%	-6.5%	-3.1%	7.2%	10.0%	3.0%
Jan-80	Jul-80	6	58	-2.2%	-6.2%	-1.3%	5.6%	7.9%	2.2%
Nov-73	Mar-75	16	36	-3.1%	-14.8%	-2.7%	4.6%	9.0%	4.4%
Dec-69	Nov-70	11	108	-1.0%	-5.8%	-1.4%	5.4%	6.1%	2.7%
Apr-60	Feb-61	10	24	-1.3%	-6.2%	-2.3%	4.8%	7.1%	2.3%
Aug-57	Apr-56	0	39	-3.0%	-15.7%	-4.4%	5.7%	7.5%	3.0%
Jul-53	May-64	10	46	-2.7%	-9.0%	-3.3%	2.6%	6.1%	3.6%
Nov-48	Oct-49	11	37	-1.7%	-6.6%	-5.1%	5.4%	7.0%	4.9%
Average		10	67	-2.1%	-6.3%	-2.7%	4.4%	7.6%	3.2%

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



FRB: WOODFORD@FRB.COM 3

This shows the statistics for every recession since World War II, the top row being the statistics for the most recent downturn, the bottom row being the average across all of the recessions since World War II.

As you can see, I think the great recession ended

last August. Did I give you a date when I thought the recession was going to end last time we met?

SPEAKER: You said September.

MR. ZANDI: I missed it. Darn. I think I told you something like September 15th, probably. It was actually August 24, so I missed a little bit. A little overly pessimistic. That would make it a 20-month long downturn, twice the average length of recession since World War II.

GDP, the value of all the things that we produce, fell 4 percent from the peak to the bottom. The bottom was Q2 '09 and again you can see that's about twice the average severity of recession since World War II, at least by that peak to trough measure.

Manufacturing got crushed. A lot of that was because of the collapse of the vehicle sector and much of that in the Midwest, so, if you live in Michigan, Ohio, Indiana, it was a particularly difficult downturn. Industrial production got hammered. And jobs, down over 6 percentage points.

Here's the good news: February was the last month of job declines. We're going to see some job growth. Now, unfortunately in the next few months, most of that is temporary census hiring, we'll take it, though. It's significant, hundreds of thousands of jobs will be created in the next three months.

But altogether we lost 8.4 million jobs, 8.4 million jobs. To give you context, we lost 2 million jobs peak to trough in the last recession, a decade ago in the wake of the tech bust.

Unemployment, it's currently 9.7. I do think unemployment's going to drift higher and go back over 10

percent, peaking at between 10 and 10.5 percent by late this year. There's been a very unusual if not unprecedented decline in the labor force. People have been stepping out of the workforce because they're incredibly discouraged. The last time the labor force contracted to the degree that it is now was in the Korean War, 50 years ago.

I expect some of those folks will start coming back in as the job market improves, looking for work, and some people will have to because they're running out of severance packages, and there's some issues with unemployment insurance and how that's affecting unemployment. So I expect unemployment to rise.

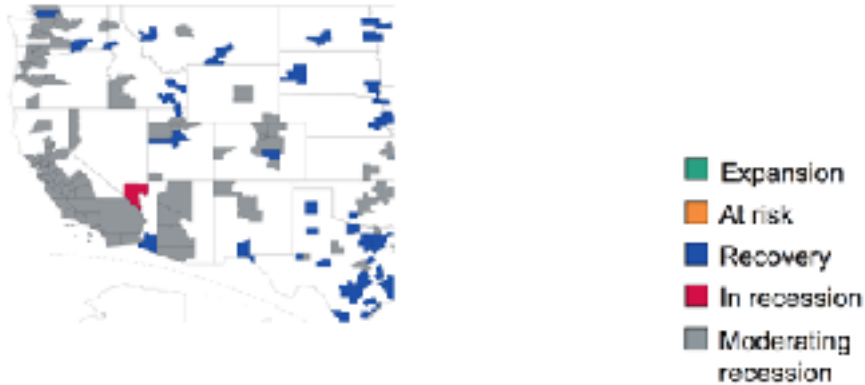
So, unemployment will not decline this year. I expect it will next year, but it will remain very elevated through 2010.

The increase in unemployment from the bottom, prior to the recession, to the peak, was almost 6 percentage points. So, again, about twice the average increase on unemployment. A very, very severe recession.

But the recession is over and you can see that increasingly regionally.

...As the Recovery Broadens Out

Business cycle as of December 2009



Source: Moody's Economy.com

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This shows every metropolitan area across the country and where they are in their business cycle. There is one metro area that's still deep in recession, the rate of decline is not moderated, and that is Las Vegas. Las Vegas is still a mess.

The areas that are in gray are still in recession, but the rate of decline is moderating. Many will begin recovery soon. And the blue areas are in recovery. Many of them in the middle part of the country – this was a part of the country that did not get hit by the housing boom and bust. Agriculture, energy, those sectors of the economy held up a bit better.

Some of the manufacturing centers, like some of the vehicle-producing areas in the Midwest that got crushed, are now recovering because the vehicle sector is on the mend. There's still incredibly low levels of activity, but off the

bottom and so they are starting to grow.

You'll note, no one's in expansion mode. Expansion means that you've recovered all that you've lost during the recession, and that is not going to happen for quite some time. It's going to be a number of years before anyone is in expansion mode, so we're a long way from that, but we're making progress.

Key Reason for the End of the Recession

Policymakers Stabilize the Banking System...

Difference between 3-mo Libor and Treasury bill yields



Sources: Federal Reserve Board, Moody's Economy.com

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FIGURE MOODY'S ECONOMY.COM 6

The key reason for the end of the recession, beginning of recovery is the policy response. The response to the fiscal crisis and panic was, at the end of the day, very successful. You can see that here. This shows the spread between LIBOR, which is the rate that banks charge each other for borrowing and lending to each other, and treasury yields, which is risk-free. So the spread is a pretty good measure of the angst in the banking system.

I'm looking at this on a three-month basis, and it's daily data back to the beginning of January of '07 prior to the crisis. You can see the crisis in '07. It devolved into a panic late '08 in the wake of Fannie/Freddie takeover and the Lehman bankruptcy. But we're now back to normal and I think much of that is related to the very aggressive actions by the Federal Reserve, Treasury, FDIC, the bank stress test.

The system isn't normal yet. A lot of small banks are still failing, which is important to a lot of small businesses, and parts of the credit market are still dysfunctional. The residential mortgage securities market and the commercial mortgage securities market are completely dormant, so they're not functioning properly.

The ABS market where the student loans are securitized is functioning much, much better. The Fed's TALF program has been very helpful and I think that market should be much better going forward.

Boost from Fiscal Stimulus

...And Fiscal Stimulus Provides a Vital Boost

Contribution to real GDP growth, %



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PDF GENERATED BY MOODY'S ECONOMY.COM

The fiscal stimulus was also, in my view, very successful. This is the almost \$800 billion – well, now over \$800 billion stimulus package that was passed a year ago. This graph shows my sense of the contribution to GDP growth from that package from '09 Q1 through the fourth quarter of 2011. You'll note that the maximum juice from the stimulus was actually back last summer and fall and that's the key reason why the recession ended at that time. It's no accident, coincidence, that the recession ended about the time that the stimulus was providing its maximum benefit. And this is a whole lot of stuff, I mean, this is tax cuts, this is spending increases, this is housing tax credit, this is Cash For Clunkers, a whole slew of things.

Now, you will note that if there is no more stimulus, then the stimulus that has been provided goes from being a plus to a negative, and by early 2011 stimulus is

actually a drag on economic growth. The reason is that the link between stimulus and the economy is the rate of stimulus spend out. So we went from no stimulus at the beginning of '09 to about \$100 billion by the end of '09, the fourth quarter of '09. That's a big change in a very short period of time. That's a lot of juice. We stay at \$100 billion a quarter in Q1 of this year and Q2 of this year, and then it goes back to zero by mid 2011 and when you go back to zero, that's when it becomes a drag.

So, if policymakers do nothing else, then the stimulus that's been put in place becomes a drag on growth, and that's important to keep in mind.

SPEAKER: What would be the way to change that?

MR. ZANDI: Right, so if I were king for the day what would I do to extend out the positive numbers? I would do three things which I think we're going to do, and I'll handicap that in a little bit. First, I would give more help to unemployed workers, extend unemployment insurance for people who lose their jobs this year, because right now if you lose your job this year, you don't get the emergency extended benefits, which are very important because the length and duration of unemployment is very, very long.

Second, I would give more help to state governments, and we'll come back to that because if they don't get more help then there will be serious budget cutting and outright job losses. State and local government is the largest employer in the country and if they're laying off, then that washes out a lot of any growth you'll get anywhere else in the economy. I think it's important that states are forced to go through hard budget decision-making, I think that's part of a recession, they need to do that, but we're

well beyond that. I mean, we're really cutting things that we don't need to be cutting, like higher education. It hurts the economy's long term growth prospects. So I would focus in on that.

Third, a temporary payroll tax cut. In fact we got that. The jobs tax credit was passed a couple weeks ago. It's a small credit. It isn't what I would have done, but it's in the right direction and should be helpful later this year.

So, point number one is the recession is over. A recovery has begun and it's largely due to the policy response. It's also due to the improvement in global economic conditions, particularly China, Asia, and emerging economies. They have turned the corner rapidly in part because they have also used very massive stimulus and in many respects, more massive than our own, and so export growth has picked up.

And this is very important because export growth is key to the recovery, but it's also key to our long-term growth prospects and that's where most of the jobs are going to come from. And anything that we can figure out how to export overseas, some of that's obvious – agricultural goods, satellite technology, music, defense equipment, unfortunately. But I think increasingly we're going to figure out how to export other things, service-related activities, where we have a comparative advantage and where we've been producing these things for a long time and we're very productive at doing it: accounting, legal, advertising, management consulting, economic consulting (I'm hiring), credit risk management, even though we screwed up the world we're still the best at fixing that problem. So they are slowly forgiving us.

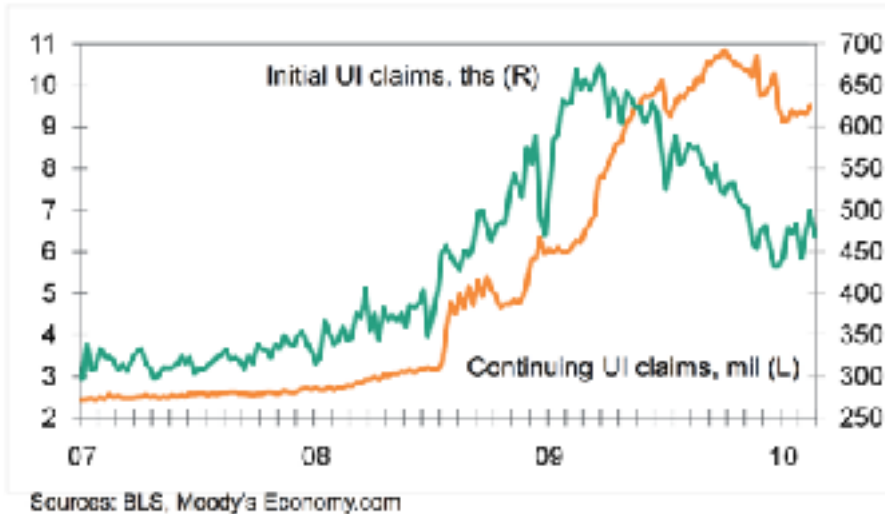
Those activities embody highly skilled and educated

workers. They need to have not only a bachelor's degree, but a higher degree, and that's key to our long-term growth prospects. And that's why I think you're so important to how well we're going to succeed in the long run because that is really the growth engine for our economy. Now that's pretty much conventional wisdom – the President in his State of the Union Address said we're going to double exports in five years. When he said that I did a double take and I went back to look at my computer immediately. That means we're going to have to see 16, 17, 18 percent per annum export growth for the next 5 years, which we have never done. So, that will be very interesting to see if he comes close to that goal.

Second point – I said there were four points – second point is that the recovery that we're now in is not going to evolve gracefully into a self-sustaining economic expansion. We're not there yet and the missing link is hiring. Businesses have stopped laying off, that's the end of the recession and why a recovery is under way, but they're not hiring yet and we need the hiring to create the jobs to create the income necessary to power spending and push the economy forward and for it all to become self-reinforcing.

Hiring is Dormant

Layoffs Abate, but Hiring Is Dormant



Sources: BLS, Moody's Economy.com

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FIGURE 1000PBE2CNCNMY.COM 8

The coast is not clear. And you can see that here. This shows claims for unemployment insurance. The green line is initial claims, on the right-hand scale. These are folks that have lost their jobs, and go down to the unemployment office and say help me out. They get a check and you can see, that has come down significantly from where it was a year ago. Still very elevated though, uncomfortably high. But layoffs have largely abated.

But the real concern is the orange line, the continuing claims on the left hand scale, and this includes the emergency and extended benefits that people are getting now. We're up to 10 million people and you can see that is very high and that needs to come down very significantly to be consistent with hiring. Businesses are not hiring.

One other quick point about this, this will start to come down on its own because people who lost their jobs two years ago in places like Michigan and Ohio will now run

out of their benefits, even the emergency benefits, because the longest period of benefit is in the state of Michigan, 99 weeks. So if you lost your job at the start of the recession and are still unemployed, you are now running out and you'll drop out of these numbers.

Credit Crunch

Why aren't businesses hiring? Two key reasons; probably many, but I'll give you two. First is credit. Small businesses in particular are credit starved. This goes back to the small bank failures. They're choking on commercial real estate loans. There are 700 small banks on the FDIC's troubled list and most of them will fail, and these small banks are very important to the provision of credit to small business, particularly in small communities.

Just a statistic, to provide a little bit of granularity, the businesses that employ fewer than 100 workers, let's call that a small business, employ half of all workers and they accounted for two-thirds of the job growth in the last business expansion. So, if they can't get credit – and, of course, they're not like a big business and have a lot of money in the bank, and they can't go to the bond market and issue a bond or get commercial paper, so if they can't get credit from their local bank, they can't hire and if they can't hire, the job machine can't get going. So this is a matter of some concern.

Another reason is confidence and there's different flavors of this. One is policy uncertainty. If you're worried about health care – finally nailed that down, but a lot of people were worried about that – energy policy, financial regulatory reform, tax policy, you know, these things matter

a lot to business people. Until you nail those things down or you say, okay, I'm going to address this at a later date, that uncertainty stops businesses from expanding.

Moreover, it's important to realize that it was only a year ago that many suffered near death experiences, right? I mean, raw panic a year ago, and you don't forget that quickly, you're going to be very cautious. So it's going to take time for business to get their groove back.

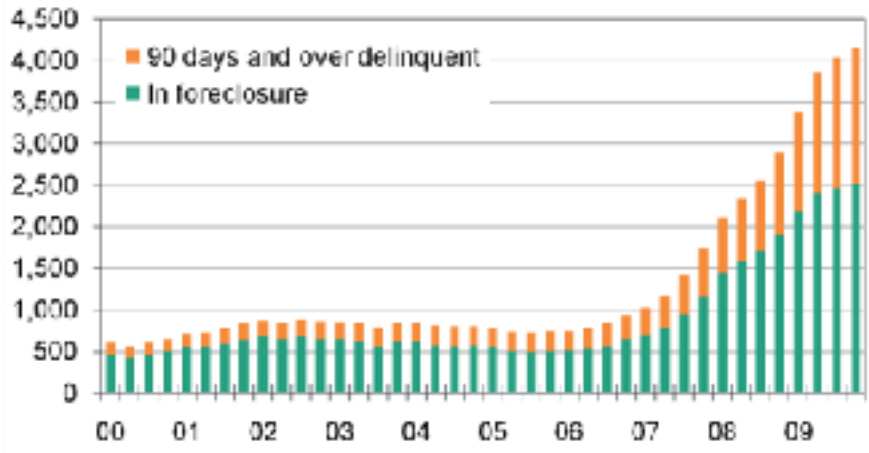
But as long as there's no hiring, we just don't get the income growth that we need to drive the spending, and income growth remains weak and most of the income growth we're getting is through the stimulus, the transfer payments, the unemployment insurance benefits, that kind of thing, so it's a very tenuous kind of economic recovery so far.

Now, I do expect that by this time next year the hiring will kick in, the credit will start to flow a little bit better and people will feel more confident, but that's still very much a forecast and thus it's very important that policymakers realize that the coast isn't quite clear.

Ongoing Foreclosures

The Foreclosure Crisis Continues to Mount...

First mortgage loans, ths



Sources: Equifax, Moody's Economy.com

Moody's
ANALYTICS

FIGURE 1000018220090901 7

Another reason for some concern about the recovery is the foreclosure crisis. This continues on. You can see that here, this shows the number of first mortgage loans that are in foreclosure or headed in that direction, that are 90 days and over delinquent. This is based on credit file data we collect from Equifax, the credit bureau.

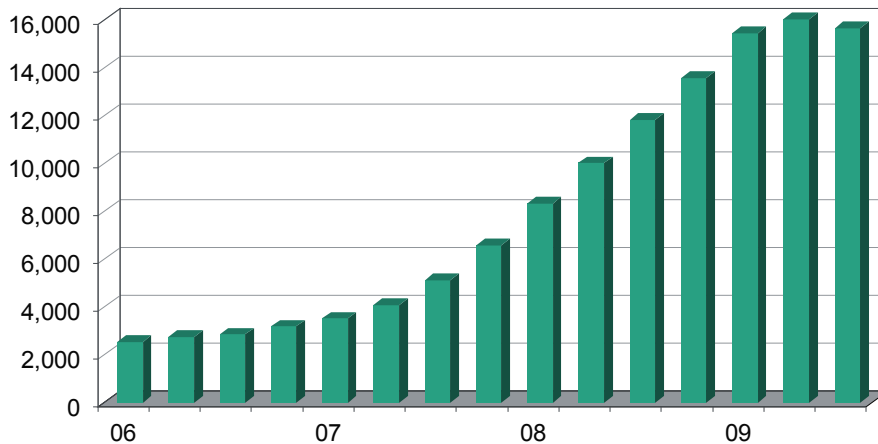
The last data point shows that well over 4 million first mortgage loans were in this predicament. To give you context, there are 52 million first mortgage loans outstanding, so this is a boatload of loans that are in trouble.

There have been four waves of foreclosure. Wave 1 was in '06 at the start of this mess. That was flippers, you know, the investors, the guys trying to make a quick buck and they turned the keys back to their lender when the market turned. Wave 2 was '07, that was the subprime reset, so

people who got loans in '05, they were two-year arms, they reset in '07, rates were still high, the Fed had not eased interest rates yet, and their mortgage payments jumped and they defaulted. Wave 3 has been underway since '08 and '09. That's a mixture of unemployment with negative equity and this slide shows you the number of homeowners that are in negative equity positions.

...As Millions of Homeowners Sink Underwater

Number of underwater homeowners, ths



Sources: Equifax, Moody's Economy.com

8

The last data point is for Q3 '09, 15.5 million homeowners are in negative equity positions, meaning the value of their house is less than the debt they owe on the home. Of this, 9 million, approximately, are underwater by more than 20 percent, so, deeply underwater. And the distribution is very skewed, meaning you've got a boatload of people that have negative equity or no equity or little equity and then you've got a boatload of people that are pretty close to paid off. The distribution's kind of bar-belled. There isn't much in

the middle ground there. When you mix unemployment, underemployment with negative equity, it leads to a lot of defaults.

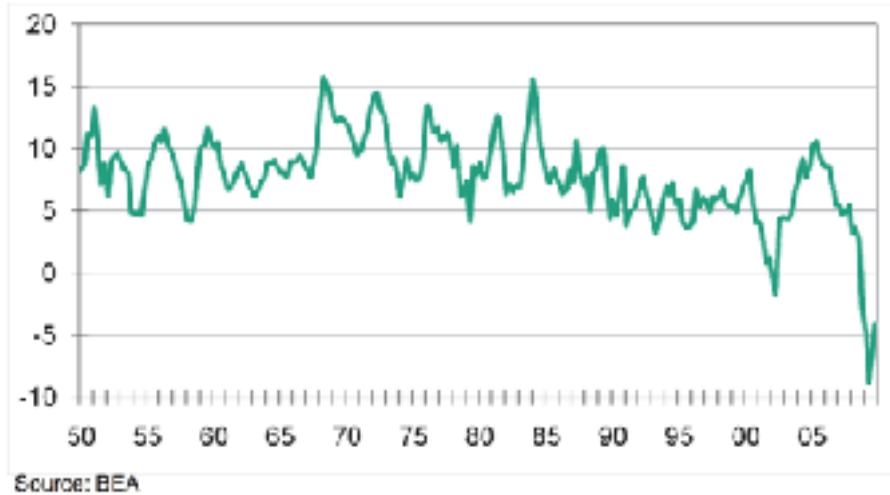
We're into the fourth wave and that's strategic default and that is, I've got my job, I can make my mortgage payment under reasonable assumptions, but I've decided not to because I'm so deeply underwater it makes no sense. If anything goes wrong in your financial life, or even if you spring a leak in the roof and you need to put another 3-, 4-, 5K in the home, why would you do that if you're 40-, 50-, 60K underwater with little prospect of getting that back? So this is a problem and the point is that foreclosures are going to remain high for quite some time, and that's going to continue to put downward pressure on housing values. And with weak house prices, nothing really works all that well. I mean, the home is still the largest asset in the household balance sheet, right? And creditors don't extend out credit to small business people because they use the home as collateral. When I started my company in 1990 and I got my first business loan, I had to put my home up as collateral. I probably didn't really know what I was doing when I did it, but in fact I could only do that because my home wasn't depreciating in value. If it's depreciating you can't do that. So, this is reason number two for some nervousness about the recovery, particularly later this year and into 2011.

Third reason, it goes to state and local government. It's a mess. You can get a sense of the magnitude of the mess here.

Collapse of State and Local Government Revenue

State and Local Government Revenues Collapse

State and local tax revenue, % change yr ago



Source: BEA

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This slide shows tax revenue growth on a percent change basis, all the way back to 1950, so I'm giving you a lot of history here for context. And you can see the recent period — I'm just kind of laughing because you'd cry otherwise, I mean, it's just incredible the collapse in revenue. It's across the board.

There are some signs of stability recently. If you listen to state budget directors they're now starting to come in a little bit above plan only because their plans are so low, the bars are now low enough that they can get over them, but nonetheless, revenues are back to where they were in '07, mid to late '07. This will improve as the economy gains traction. Sales taxes are still the largest source of revenue for states, and with better consumer spending we are starting to see improvement, but their budget holes are massive.

That wasn't an issue in this last fiscal year, the one we're in currently, because of the stimulus. There was

\$50 billion in the stimulus for states. But if they don't get more help from the feds, they've got a real serious problem. By my accounting, the budget hole for Fiscal Year 2011 that's coming soon, in June/July, is closing in on about \$75, 80 billion. So, that's a massive hole and that will mean tax increases, massive spending cuts and job losses. And this becomes particularly pernicious in early 2011 because the current stimulus gives money for FMAP through the end of this year and there's no money after that under the current stimulus. So, hopefully policymakers will give them more money.

Now there is a piece of legislation making its way through Congress that would give them \$25 billion more, which would be helpful and I think will get passed, and I suspect that when it gets down to brass tacks and we're getting to that cliff, that Senators will figure out a way to cut more checks to governors. They don't like doing that. I mean, they would rather be out there cutting the ribbon themselves, but I think they'll realize it would be a mistake not to, but they're going to push it right to the limit here. So, this is another key risk. Yes?

SPEAKER: Mark, around '03 revenues went backwards. What caused that?

MR. ZANDI: That is the collapse in capital gains tax revenue related to the tech bust. You know, California - actually, people are moaning about California, and rightfully so, it is a mess, but it's what I call a high beta state. It goes up and down and they'll be feeling a lot better if the economy actually kicks into gear because they have a lot of high income, high net worth households and revenues will start pouring in. So, when things are bad they are really

bad, and when things are good, they are really good.

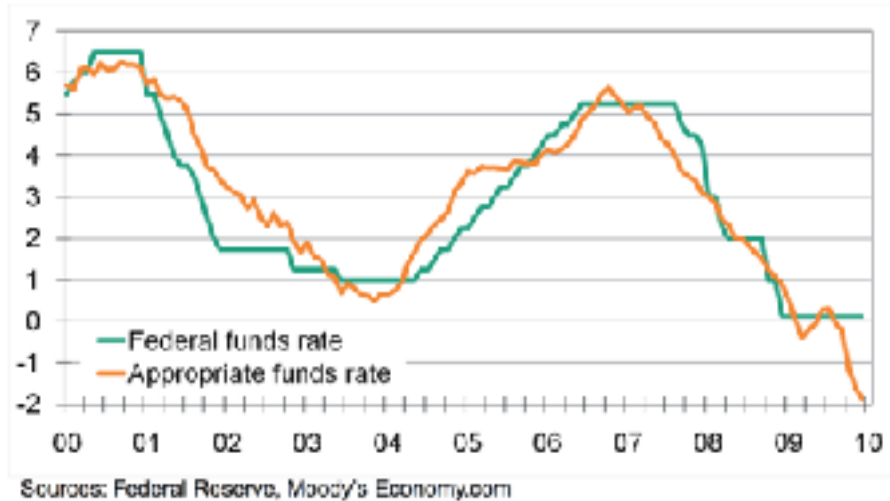
Now, I can go on with other risks to the recovery, but I'm going to limit it to the top three because I'm sure I've depressed you enough, right? Okay, so we talked a little bit about commercial real estate and we can address that further if you'd like to.

Low Fund Rate is Essential

Point number 3, given what I've just articulated about the recovery, I think it's very important for policymakers to remain very aggressive and err on the side of doing too much to make sure that the economy evolves into that expansion rather than doing too little because if they do too little and we do backtrack into recession, we're not coming out. That's a bit of an exaggeration, we will come out, but it will be very painful because there is no good policy response to that. The funds rate target is close to zero. We do have a \$1.4 trillion budget deficit that would balloon out so it's very, very important not to backtrack here, and I think the Fed understands that and will keep rates very low for an extended period and you get a sense of that here.

Ongoing Fiscal Policies

The Federal Reserve Will Remain Aggressive...



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This shows the actual funds rate target, the green line, and what I am calling the appropriate funds rate target, looking at unemployment, looking at inflation, looking at all the other things the Fed's doing, how well the credit markets are performing. And you'll note that the appropriate federal funds rate target today is negative, which would be a trick. You can actually do that. The Swedes have figured out a way to do that, you know, basically impose a tax on the banks for holding reserves so you could do that, but I don't think we have the stomach for it, but the point is that rates aren't going to be rising any time soon. I suspect the Fed will keep the funds rate, the interest rate on reserves, at close to zero at least through the remainder of this year before they raise rates.

...And Fiscal Policymakers Are Not Finished

- » Passed late 2009: \$45 billion in more aid to unemployed workers, extension and expansion of homebuyer tax credit, extended higher conforming loans limits, and NOL.
- » Recently passed: \$15 billion in job tax credit and Buy American bonds.
- » High odds of passage: \$70 billion in aid for workers losing jobs in 2010, aid to state governments, expanded SBA lending and extended tax cuts.
- » Less than even odds of passage: expansion of loan modification plan including incentives for principal write-down.

Fiscal policymakers will do more also and I'm just listing a few things they've done recently and handicapping a few things that they might do. Late last year they did pass a piece of legislation worth \$45 billion to help unemployed workers who lost their jobs in '09. A few things, extending the housing tax credit to April of this year, that was very successful last year; a couple of other things, they did pass a bill a couple weeks ago, \$15 billion, that jobs tax credit I mentioned and Buy America Bonds. That's been a very successful effort to facilitate a municipal bond issuance to finance infrastructure spending. I think that's been quite successful.

And I think there is a high odds of passage of another \$70 billion. There's the \$25 billion for state government and some more help to unemployed workers, expanded SBA lending to help with respect to credit availability and small business. You add that up, that's \$130 billion in 2010

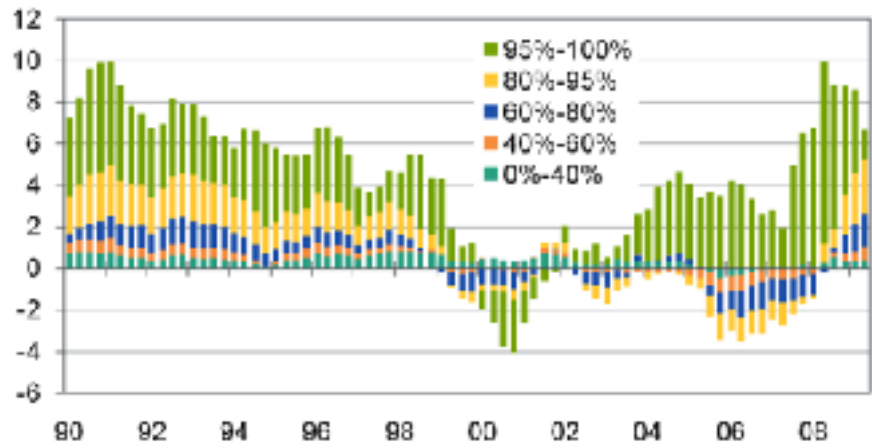
and that, if you think back to that chart on stimulus and its impact on the economy, this will make sure that fiscal policy does not become a drag on the economy until after the election, so it won't be until 2011 that we'll start to see some significant drag, but I think by then, by this time next year, the expansion should be taking root. We should see some hiring and some substantive job growth. Income growth should be returning to more normal levels of 4 to 5 percent per annum on a household basis and we should be off and running.

I said there were four points, there are actually five. The fourth point, maybe I thought I was going to skip it because it is an upbeat point, but I should throw that in, don't you think, and that is, by 2011 and certainly by 2012, I think we'll be in much better shape and the expansion will be in full swing. And one of the key reasons for that view is that we are righting some of the fundamental wrongs that got us into this mess. Businesses are working hard to fix their balance sheets. They're deleveraging and with low rates, interest covered ratios are coming down very rapidly. And households are making progress too, and you can see that to some degree here.

Household Finances

U.S. Households Are Fixing Their Finances...

Contribution to personal saving rate, 4-qtr MA



Source: Moody's Economy.com

Moody's
ANALYTICS

FROM MOODY'S ECONOMY.COM 12

This slide shows the personal saving rate. This is the flow of funds data from the Federal Reserve, a source of data that's a little bit different from what you might be used to looking at, that is, the BEA personal income data.

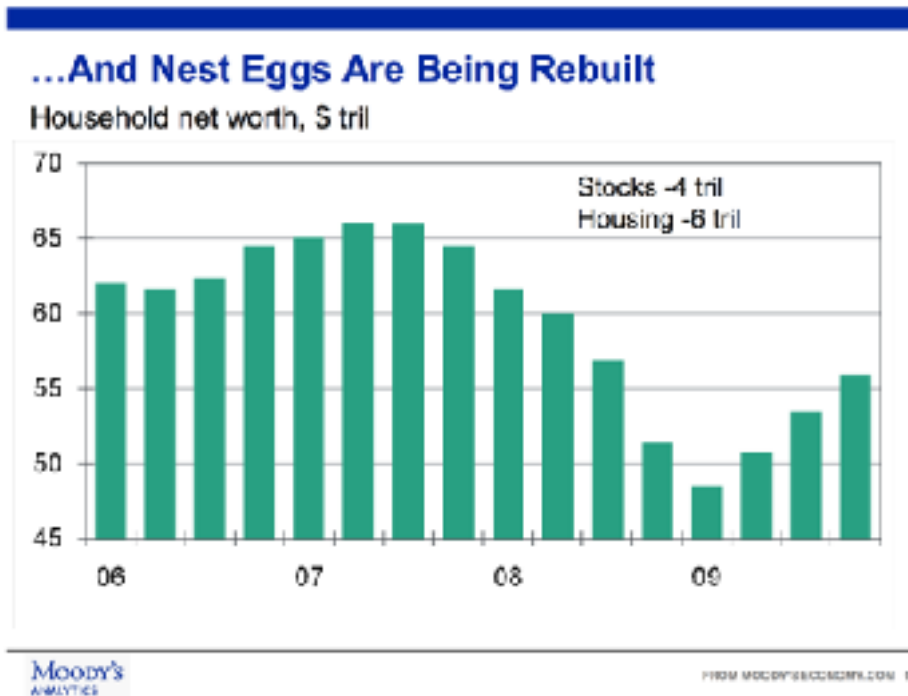
I use this data because I'm able to decompose the saving rate into different demographic groups. This chart shows the contribution to the personal savings rate from different income groups. You'll note that the light green, that is the top 5 percent of the income distribution, and they make a big difference, right? What they decide to do with saving really drives that saving rate around. That's where the money is, that's where the action is, and you can see back a decade ago when the equity market was at its peak, they were actually saving very little because they thought they were wealthy, really wealthy and they didn't need to. That changed and in the panic a year or two ago, they were

saving a boatload of money because they thought, I'm not going to even be able to pay for my retirement let alone my child's college education, so they piled on.

The saving rate for that group has actually come down quite a bit recently. I think this group is exhaling. The equity market is up and they think, oh, it's maybe not as bad as I thought and I put off things that I wanted to do, so spending has actually felt a little bit better in the last couple, three quarters.

The other thing you'll note is that all income groups are now saving, lower income groups are also saving more too. That's forced saving, that's deleveraging. Part of that, I'm defaulting on my mortgage, part of it I have no choice because I can't get any credit.

Household Net Worth



And just to reinforce the point, things are getting a little

bit better in terms of those nest eggs. This shows the amount of household net worth out there. This is the value of all the household assets less the value of their liabilities, and you can see, it plunged by almost \$15-, 20 trillion, peak to trough. Trough was a year ago and we've come a long way back. We're well below where we were, but we've come a long way back, so this increase in saving, the improvement in net worth, all positive signs. It suggests that consumers will be at least doing their part by 2011 and '12.

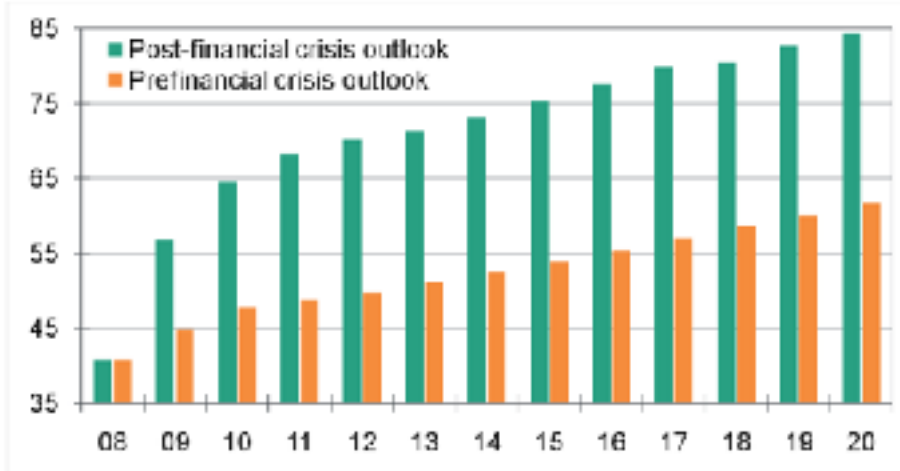
So, point number four, I think if we make it through the next six to twelve months, we should be off and running, by this time next year, certainly by 2012.

Finally, point number 5. As you can sense from the discussion, I strongly believe that policymakers had to be very aggressive during the last several years, that if they had not acted as aggressively as they did I think we'd still be in a recession, with the financial system still in disarray – but unfortunately there is no free lunch. Policymakers did use a lot of resources to get us to where we are today. A \$1.4 trillion budget deficit last fiscal year and we'll be lucky if it's only \$1.4 trillion this year – and, of course, this leads to a much more precarious situation and you can see that here.

Federal Debt-to-GDP Ratio

No Free Lunch

Federal debt-to-GDP ratio



Sources: BEA, Treasury Department, Moody's Economy.com

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fiscal

This shows the nation's federal debt-to-GDP ratio out 10 years to 2020. I'm showing you the forecast I did of this measure of our fiscal health prior to the financial crisis, that's the orange bar, and the current forecast, that's the green bar. The forecast before the crisis was not particularly encouraging. The debt-to-GDP ratio rose from about 40 percent in Fiscal Year '08, which is about equal to the average since World War II, to 60, 65 percent by 2020. That 60, 65 percent would be the highest since just after World War II and that's barely manageable.

Now look at the green bar, we're already at 65 percent in Fiscal Year 2010, and take a look at the forecast out by 2020. We're at 85 percent. This does not include Fannie Mae and Freddie Mac. This does not include municipal debt. You throw all that in and we're already over 100 percent. And of course, global investors know this chart

quite well and they don't end their forecast in 2020. The way they do their long term forecast is they take a ruler, they apply it to that line, and they extrapolate out – and by the way, that probably gives you a pretty good forecast of what would happen if we don't change this picture.

Of course the forecast is wrong because we'll never get there because investors will begin to demand a much higher interest rate to compensate for the risk and they're going to demand that pretty soon. They're not going to demand it this year because no one is borrowing, everyone is deleveraging, so the only entity that's borrowing is the government so there's no other demand for credit. But when the economy's off and running in 2011 and '12 and private credit demands are kicking in again, when businesses are borrowing and if we still have a large budget deficit, that's when interest rates will start to rise.

And so I think we should all prepare for the increasingly likely probability that we're going to have some kind of fiscal event, maybe crisis, sometime probably in 2012, sometime in 2012. Do you want a date? Okay, April 2012, April 13, 2012.

SPEAKER: Is that a Friday?

MR. ZANDI: Yeah, I think that's a Friday. And do you want to know the time of day?

SPEAKER: I want to know what the event is.

MR. ZANDI: Okay. Well, if you want to know the time of day you've got to buy my next book, by the way.

SPEAKER: It's a deal.

MR. ZANDI: It's a deal. Okay. The event will be significantly rising interest rates. One could throw in a significant depreciation of the value of the dollar, but

that's harder to construct that scenario because it has to depreciate against something and I don't see it depreciating much against the euro, pound, or yen, because their problems are already here. We've got a little bit of time.

Well, I think they'll allow the yuan to appreciate in value, but they'll keep it under wraps, so I don't think we'll see massive depreciation, but we will see higher interest rates.

Now, I'm going to end this way, on an encouraging note. This all sounds very dark by 2012. But I think there is a way out and in part the way out is generated by that fiscal event. That event will be a catalyst for creating the political will necessary to make the hard choices that we need to make. Also encouraging is the fact that I do think the policy folks that think about these issues, the guys at Brookings, and at AEI, and other kind of mainstream policy think tanks and institutions, are coming to a consensus as to what to do. They're not quite there yet, but I think they are coalescing – not the policymakers, they have no idea – but I think it is encouraging that the policy folks are coming to a consensus, because once they do and can present that in a reasonably logical way to policymakers, that's when the catalyst actually happens, the policymakers will have something to act on and we will actually get changes that will be meaningful and change this chart.

So, I'm a buyer, long run. I'm a buyer long run.

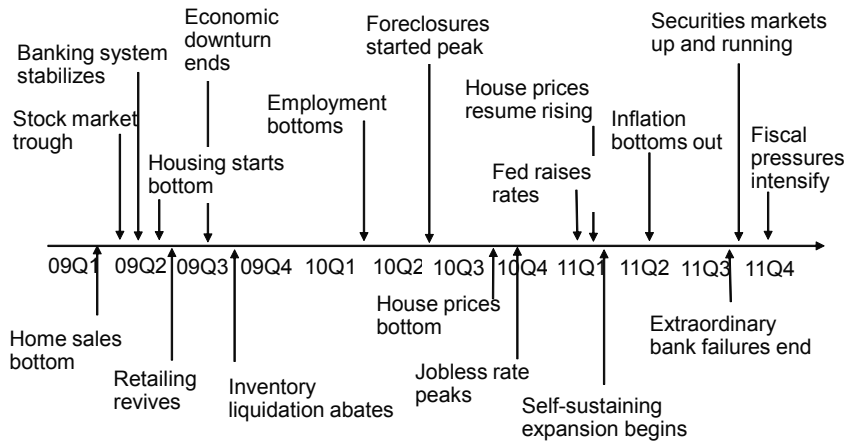
SPEAKER: Is 2012 an election year?

MR. ZANDI: It is an election year, which will make it even more interesting. Yeah, it will make it more interesting, and I think President Obama will have to grapple with this, that would be my guess.

Economic Timeline

Okay, now, I'm going to end with my last chart on the economic timeline and I'll talk about the roadmap to job market recovery.

Economic Timeline



Source: Moody's Economy.com

Moody's
ANALYTICS

FROM MOODY'S ECONOMY.COM 15

I'll just quickly scroll through this. That's August of last year. This is February – now we're going into forecast mode. That's my 10.3 percent unemployment rate. This is now early 2011, first rate hike. This is where the self-sustaining economic expansion kicks in, so this is about a year from now. This is where we exhale. And there's my lead up to the fiscal crisis in the spring of 2012.

Now, the roadmap to job market recovery, this is how I think it's going to go. We've had job growth all along in health care, a little bit in educational services – more demographically driven, government funded, less business cycle oriented. We are now getting job growth in

manufacturing, a lot of that is related to the revival of the auto sector, some export growth, and an inventory swing. And logistics, because when you produce more stuff and you export and import more things you have to hire people to ship them around so, warehousing, distribution, number of truckers, that's just kicking in right now. Actually a lot of the temp jobs that are being created are logistics jobs.

I think the next source of job growth will be high technology, because a lot of that's being exported, so that's everything from sophisticated instrumentation to medical instruments to sophisticated materials, satellite technology, aircraft, aerospace, that kind of thing, a little bit of pharmaceutical. Then by summer, early fall, many of the professional services will start to kick in, so legal, accounting, advertising, management consulting, engineering, those kinds of jobs. I think by late this year we'll start to see more financial services jobs – asset management – maybe some lending related jobs because we'll go from deleveraging to some loan growth, more housing transactions so we'll see more related to that.

By this time next year, construction jobs will start rising because the level of housing construction is very low and will start to pick up by then and we'll start to see some construction and the down draft in commercial construction will be over and we'll still have some public infrastructure jobs.

By the spring/summer of next year, 2011, that's when the big job-creating industries will kick in: retailing and leisure and hospitality. People will start feeling more confident. That's when the self-sustaining economic expansion kicks in, so we'll start to see people going back to Vegas

and Orlando, and we'll start to see some job growth there.

The last sector to hire will be state and local government. That probably won't be until 2013, 2014. I think we'll see layoffs through 2011, and then by 2013, 2014, some job growth. So that will be the last sector to turn around. So that kind of gives you a roadmap.

Higher Education Positioning

Now, in terms of how higher ed should position itself in this period, I think it's appropriate to be cautious. And I'm not telling you anything you don't know, but all your sources of revenue are under pressure. Now, the good news is, increasingly less so, and I suspect that will steadily be the case as we make our way through, but it's not like a light switch is going to go on here. It's like someone's turning on a little bit of light and it's slowly going to brighten. It's not going to be, oh, we're off and running again. So I think in that context it's important to be cautious with respect to all facets of your business and your activity.

Now, ironically, this is the same message I give to almost every other business and the fact that I give it to every other business means that it will be self-fulfilling, so we're in this kind of odd situation where this seems to be the most prudent management policy, but it's also the one that dooms us to actually having to suffer through it.

So, if you want to go ahead and turn on the light, feel free.

Well, thank you. I think I addressed everyone's questions. If there's anything else you want to ask I'd be happy to address them.

Discussion

SPEAKER: You say that policymakers are beginning to coalesce around ideas. We've heard the VAT is one. What other sorts of ideas are you seeing coalesce around?

MR. ZANDI: The question is, what kind of policies are people coalescing around to address our long-term fiscal problems? On the tax side, I do think it is the VAT. I think that is the most logical way to approach this. You can raise a boatload of money pretty easily. And that's the biggest rap against it, that you can raise so much money so quickly that policymakers can abuse it, and we can turn into Europe. And I don't mean to dismiss that. We need to guard against that possibility, but that also is its strength, that it can generate a boatload of revenue.

It is regressive, so you have to make sure it's designed properly, maybe figure out other ways to compensate the low-income groups and the seniors that suffer under a VAT, but I think those are problems that can be adequately addressed. I think that's the most logical way to go and I think that's the way we're headed. In fact, one could envisage a scenario, and I'm now stretching a bit, where you could set the VAT high enough that you could generate enough revenue to revenue-share with state and local governments because their tax base is eroding and will continue to erode, and the Byzantine structure of our state sales taxes is, I think, very counterproductive. It's an economic hindrance. And so I think that would be something that could be done in the context of a VAT.

Personally the tax I like most, that I would add into the mix would be a financial institutions tax, similar to the TARP tax. I think we will always have "too big to

fail" institutions, that there is no way that we won't, and that we need to embrace that fact, but we need to be compensated for subsidizing these institutions in the form of a lower cost of capital. And we should call that back in the form of a tax that is based on the size of the institution and its complexity. And I think we can do that reasonably, and by doing so you make "too big to fail" less likely because you raise their cost of capital and it makes it more difficult for them to get too big, and I think you can generate a significant amount of revenue by doing that as well.

On the spending side I think the principle is that we've got to go away from entitlement programs to insurance policies, that Social Security and Medicare are not entitlements. You only get it if you need it: means testing. And I think that it's going to be called different things and it's going to be dressed up in different ways, but at the end of the day, that's what it's going to be: means testing.

So, bottom line, your taxes are going up and you're going to get less benefits.

Okay - we have one more question.

SPEAKER: I'm curious, when you say house prices start rising in the first quarter of '11 and then by April of '12, interest rates go up, and you commented on the fact that that fiscal event might get policymakers' attention and finally get these now coalesced-around policies into practice. But what happens on the ground to house prices and then, what about the impact of housing on the economy given the fiscal event?

MR. ZANDI: Well, rising interest rates are clearly a negative for housing and I would argue, all else being

equal, that that will depress housing demand and weigh on any house price growth or, under some circumstances, cause further house price declines. But there are many other factors that drive housing demand and house prices, like job creation, the availability of credit, house price expectations, the inventory, the foreclosure situation, all those things. If you bring it all together it suggests to me that we'll get some very modest house price growth. But we're not going to get house price growth that we would feel very comfortable about until we're through that period, until interest rates do settle down and we get through that fiscal crisis.

So, just to give you a number, long run, abstracting from the vagaries of the business cycle and credit availability and everything else, house prices nationwide should rise 4 percent per annum. That's what it should be. Of course, in the boom bubble it was much higher than that and on the bust it was significantly negative. Housing at this point is probably appropriately valued, so, all being equal, we should get 4 percent per annum, but it will be centered around that depending on interest rates and other things that affect the demand and supply of housing.

But I wouldn't count on big, significant house price growth above that until we're through 2012, past the fiscal event, and interest rates have settled down. So, you're not going to get a lot of equity built in your home until well into this decade.

You had a question, sir?

SPEAKER: Yes, what's your outlook for inflation?

MR. ZANDI: I think that the risk in the near term is disinflation and deflation. The core CPI is 1.3 percent,

which is uncomfortably low. In the last few months it's actually been closer to zero, and that's because you have a surfeit of excess capacity everywhere: in the labor market, in the commercial real estate markets, in the housing market. So, there's a lot of pressure on prices. And I think in the next 6 to 12 months we'll see further disinflation and the risks are on the side of deflation. And then getting back to my point about the Fed, there's no reason for them to be raising interest rates anytime soon in that context.

Now, by 2011, '12, I think you could make a case that inflation has accelerated above the Federal Reserve's target range — so 2, 3, 4 percent — because the Federal Reserve will have a difficult time landing the plane right on the tarmac. So they'll probably keep rates too low for too long just because they do want to err on the side of doing too much, but I think that will be manageable. And at the end of the day, the Fed will sacrifice the economy at the altar of stable inflation because they know in the long run we can't get good long-term growth without stable and low inflation.

So, if inflation starts migrating above their target, they will be raising interest rates about the same time that global investors are demanding higher rates. That's going to be a very, very tricky period for the economy for that reason. But I'm not worried at all about inflation.

Thank you very much. It was a pleasure. Thank you.