>>Marc Steckel
Good morning everyone. We will be getting started shortly. Chairman Bair will be opening the symposium in just a minute or two. Well that was very fast. That was good.

Well, good morning to everyone who is joining us here in Washington and via the online webcast. This is the FDIC Symposium on Interest Rate Risk Management. My name is Marc Steckel and I work here at the FDIC. You will see me periodically throughout the day introducing some of our speakers and panelists. One initial housekeeping item, if I could ask you to be so kind to either turn off your PDA or at least turn the ringer off. We have a lot of folks recording here and I think the day would go a lot better if we could have things quiet.

We are fortunate to have gathered a wonderful and accomplished group of people here today. To get things started, I am honored to introduce Sheila Bair. She is the current Chairman of the FDIC and has been a respected and influential voice in the public policy discussions on a series of issues associated with the financial crisis. Chairman Bair was raised in Kansas and is a graduate of the University of Kansas and the University of Kansas Law School. She worked on the Hill for Senator Bob Dole. She's taught at the University of Massachusetts Amherst. She's also worked for the New York Stock Exchange and was a commissioner at the Commodities Futures Trading Commission. Most recently, in 2006, she was named chairman of the FDIC. I can tell you that her time here has been a great time to work at the FDIC. We've been a part of quite a bit of interesting and important work. Please join me in welcoming chairman Sheila Bair.

>>CHAIRMAN SHEILA BAIR
Well good morning everyone. Welcome to the FDIC. We have a very good turnout. I had heard we were turning people away, I wasn't sure if that was a good thing or a bad thing. If Interest Rate Risk -- if people are concerned or if it is just a very topical issue right now, which it clearly is. But I think what we are really trying to do is just get ahead of the curve by talking about this. It is an event in the future to occur and we can talk about proactive ways to manage this additional challenge to the banking industry.

I would like to also thank all of the folks that are here with us via webcast or over the Internet. A lot of people are tuning in as well. I would also like to thank all of our fine staff for all of the hard work they have put into this conference to get it ready. I'm very pleased. Again a very good turnout and really an excellent panel of speakers.

The reason we are here today obviously is to discuss the unique challenges posed to depository institutions by today's historic low interest rate environment. The near zero federal funds rate target that has been maintained, necessarily by the Federal Reserve, since December 2008 has been a huge historical precedent obviously. As in the current situation, zero interest rate policies were instituted in previous episodes in response to the deflationary pressures during severe recessions that followed major financial crises. However, the historical rarity of such episodes and the unique set of conditions associated with each make it difficult to know what lies ahead when the current U.S. zero interest rate policy inevitably ends.

We do know that at some point interest rates must rise. We also know that depository institutions are nearly always impacted by rising interest rates. So managing interest rate risk is really part of their day-to-day business. This problem can become more acute and the vulnerability of banks can rise in periods of highly volatile interest rates or when banks pursue balance sheet strategies that broaden the duration mismatch between assets and liabilities. On the asset side an accumulation of mortgage related assets could present unique risks in an environment such as this. Total holdings of mortgage related assets by FDIC insured institutions have shrunk slightly in recent quarters. However these exposures could increase once again when federal programs aimed at bolstering the housing market are wound down.

On the liability side, a greater reliance in recent years on non-core deposits and wholesale funding products could be making bank-funding costs more sensitive to rising interest rates. A thorough evaluation of Interest Rate Risk must be done at individual institutions and by regulators to determine whether exposures are building in the current environment. We all have a clear interest in evaluating the Interest Rate Risk facing the industry and if there is evidence this risk is building, I think we need to know more about it and how we can defuse it before the pressure causes problems for insured banks and thrifts.

There are many lessons to learn from the current crisis, as we all know too well. One big lesson is that bankers and regulators need to get ahead of the curve to work early and effectively to limit risk accumulations before it is too late and they threaten the financial system and the broader economy. Much of this costly crisis probably could have been avoided in retrospect, hindsight is always 20/20. The industry clearly bears much of the responsibility but regulators do too. We could have and should have used our authority more proactively and aggressively to stop the excesses that grew into a full-blown meltdown.

The risk, the changes in the level of interest rates or changes in the shape of yield curves, could hurt banks and should always be a concern for bankers and for regulators. Rapid changes in rates are especially worrisome because of the adverse impact it can have on bank lending and earning. The emergency government response to the financial crisis was absolutely necessary but it left us with very low short-term rates, steep yield curves and volatile credit spreads.

Some firms have capitalized on this by increasingly using short-term funding for longer-term assets. I'm afraid that the risk of this business model will become all too clear when interest rates rise or the yield curve flattens. Frankly I don't know exactly what the future holds. I am not certain that anybody has a crystal ball accurate enough to make a reliable prediction. But what we do know is that things will be changing.

I am pleased to see some signs of strength in the financial system and that this has allowed the government to slowly become less involved in financial markets. I think we can take some comfort from the progress that we are seeing, but we should not be complacent. I expect that returning to normal might present challenges for some banks that are not prepared. So we need to help make them prepared for the change when it comes.

Our discussions today are an opportunity to understand the implications of today's historic low, short-term rates, where Interest Rate Risk may reside in the system, and how best to prepare for the inevitable increases in interest rates that lie ahead. We will hear about the types and amounts of Interest Rate Risk that exist in both community banks as well as in larger institutions. We will learn about best practices for managing these risks and we'll talk about what regulators will be expecting from the banks as they deal with these risks.

I personally want to learn more about any impediments to addressing excessive Interest Rate Risk exposures that may exist and what we can do to fix that. We have a fantastic group of speakers and panelists who will lead the discussion. We will be getting points of view from across the system with executives from both community banks as well as larger institutions. Other market participants and observers will voice their views as well. We have a panel of senior level supervisors from the banking agencies who will talk about our recently issued advisory on interest-rate risk and what it requires. So I am looking forward to a lively and informative debate and discussion that I hope will prepare us better for the days ahead.

Let me now introduce our keynote speaker -- Donald Kohn. Vice Chairman Don Kohn actually needs no introduction I don't think to anyone in this room. He may not be a household name, which some of us would say is probably a blessing, but in financial circles, Vice Chairman Kohn is known far and wide around the global as a pillar of central banking. He has been involved in central banking for some 40 years, beginning his distinguished career in 1970 as a financial economist at the Kansas City Fed. An avid sailor on the Chesapeake Bay and proud grandfather of four, Vice Chairman Kohn is also known for thinking outside of the box and living on the non-conventional side of life. What other central banker do you know that rides a bicycle to work? I've enjoyed working with him over the years and have tremendous respect and thank him so much for being with us. He is a font of knowledge, wisdom and wise counsel and without further ado I will introduce Donald Kohn. Thank you Don.

>>DONALD KOHN
Thank you, Sheila, for that very kind introduction. I would say both my sailboat and my grandchildren have felt a little neglected over the last two years. So let's hope we get back. I am looking forward to getting back to know both of them -- all of them a little better.

I very much appreciate Sheila's invitation to participate in this symposium. Interest Rate Risk management is an especially important topic in light of current market realities. Following its meeting earlier this week, the FOMC repeated its expectation that rates would remain at exceptionally low levels for an extended period. I will say little about the outlook for interest rates particularly just a few days after an FOMC meeting. But it is obvious as Sheila said that as the economic recovery gains traction, it will be appropriate at some point for the FOMC to raise interest rates.

One of my messages today is that the response of interest rates across the maturity spectrum to actual or expected tightening of monetary policy is always hard to predict, but it is especially so in current circumstances. The usual uncertainty about changes in policy interest rates is compounded by uncertainties related to the possible special effects of the historically low level of rates in the current recession, as well as the unprecedented increases in the size of the Federal Reserve's balance sheet and bank reserves as a result of our credit programs and large-scale asset purchases. This run up in Federal Reserve assets and bank reserves will also need to be unwound over time with possible consequences for the structure of interest rates.

Another message I hope to convey today is that many banks, thrifts and credit unions may be exposed to an eventual increase in short-term interest rates. As the Interest Rate Risk Advisory issued by each of the financial regulators earlier this month recognized, Interest Rate Risk is inherent in the business of banking. But, it is especially important now for institutions to have in place sound practices that measure, monitor, and control this risk. They must not become distracted from this critical task by their efforts to deal with credit problems nor can they think that assuming great Interest Rate Risk is a sound strategy for compensating for losses they are taking on their loan portfolios.

The recent crisis has been a stark reminder that borrowing short and lending long is an inherently risky business strategy. As the financial markets became disrupted, the liquidity risks of this strategy became painfully evident. Intermediaries need to be sure that as the economy recovers they aren't also hit by the Interest Rate Risk that often accompanies this sort of mismatch in asset and liability maturities. Interest rates are difficult to forecast in the most settled or normal of times and their path is especially uncertain in the current circumstances.

Short-term rates will rise at some point but when, how quickly, and by how much will depend on the outlook for economic activity and inflation, as the Federal Reserve pursues its objectives of maximum employment and stable prices. The historical record shows that short-term rates have moved in a variety of patterns in economic recoveries from recessions. Sometimes rates began to rise shortly after the economy turned around and other times it took a while for policy tightening to begin. And in other instances, rates continued to decline even after the economic recovery took hold as during the 1991 period and to a lesser extent in the 2002-2003 period.

We are just now beginning to recover from the deepest recession since World War II. Most economists expect only moderate growth and a slow decline in the unemployment rate over the next few years, importantly because it will take time for banks to rebuild their capital and begin competing more vigorously for loan business again. Clearly we are in uncharted waters for monetary policy in the financial markets. I guess that is sort of a sailing metaphor, isn't it. Unfortunately I have run aground a couple of times out there, I hope that's not a metaphor too.

When the Federal Reserve begins to raise short-term rates, the yield curve usually flattens, but not always. Longer-term rates can respond in a multitude of ways with important implications for financial intermediaries. We recall that in 1994 long-term rates actually rose more than short-term rates for a time steepening the yield curve and imposing substantial capital losses on market participants exposed to rising bond yields. By contrast in the second half of 2004, long-term rates hardly rose and in 2005 they actually declined when the Federal Reserve tightened monetary policy.

In my view that decline in long-term rates partly reflected strong demand for dollar denominated assets especially from countries running current account surpluses which were in effect greatly adding to the global pool of savings seeking higher returns. Extremely low interest rate volatility probably also contributed to investors' willingness to extend duration. No one knows what will happen to long-term rates over the coming years. But the group of 20 leaders have focused on emerging from this recession with better balanced global growth. That suggests that foreign capital could be less plentiful for the United States and volatilities are unlikely to return to their previous state.

Banks and other investors cannot count on a repeat of the most recent experience, the absence of capital losses as short-term interest rates rise. In addition, the behavior of intermediate and longer-term rates over coming years could well be influenced by a number of unusual elements in the current circumstances. Short-term rates have been close to zero for a year and if the economy follows the trajectory expected by the Federal Reserve, they are likely to stay there for an extended period. One of the purposes of those very short-term rates is to induce investors to buy longer-term and riskier assets than they were buying over the past year thus reducing borrowing costs for households and businesses. How people will react to increases in expected and actual short-term interest rates after such a period is very hard to tell.

Moreover, to counter the financial forces weighing on the economy, the Federal Reserve purchased large quantities of long-term agency mortgage-backed and Treasury securities putting significant downward pressure on longer-term interest rates. We are now winding down those purchases. The affects on rates and the cessation of our purchases is likely to be modest but that judgment is subject to considerable uncertainty.

Moreover the purchases created a large volume of reserves in the banking system. The reserves themselves could begin to affect the pattern of interest rates if depositories try to diversify out of reserves and into other assets. When it comes time to absorb those reserves and raise interest rates, the Federal Reserve has a variety of tools at its disposal ranging from increasing the rate it pays on excessive reserves, absorbing reserves by engaging in reverse repurchase agreements, offering term time deposits to depository institutions and selling the assets on our balance sheet. The possible mix of and sequencing the use of these tools is under active consideration by the FMOC. We will choose the combination best suited for meeting our macroeconomic objectives and those choices will influence not only the general level of interest rates, but also the relationships among them.

Finally, intermediate and longer-term interest rates fluctuate in response to many forces in addition to the changes in the stance of monetary policy. Yield curves have shifted considerably at times in the past when monetary policy has been relatively inactive. For example, the past federal budget deficit is likely to be an important influence over coming years. As you know, under current law, the deficit is on track to remain quite large even as the economy recovers thus pushing up the ratio of federal debt to gross domestic product quite considerably. Unless this trajectory is changed, the competition for savings between the government on one hand, and households and businesses on the other, could be significant as households and businesses begin to borrow and spend in the recovery, putting upward pressure on interest rates.

Moreover, a number of institutions have an unusually large amount of debt to roll over in the next few years as a consequence of the shortening of the maturity of borrowing that naturally occurred under the pressure of financial turmoil. I'm confident that sound institutions will find credit readily available to them. But the cost could be affected by the increasing competition for funds. In light of the uncertain course of interest rates, financial intermediaries face significant challenges in managing their interest rate exposures.

Clearly the impact of changes in market rates depends on the maturity and repricing mismatches embedded in institution assets, liabilities, and off-balance-sheet positions. In general those institutions whose assets are expected to reprice faster than their liabilities, referred to as asset sensitive, would be expected to benefit from a rise in rates because higher rates, holding everything else constant, should increase net interest margins. Conversely the net interest margins of liability sensitive institutions, those whose assets durations are longer then their liability durations, would be expected to be negatively affected by the rise in market interest rates.

Of course, there are more than 15,000 U.S. banks, thrifts and credit unions and the interest rate exposures faced by individual institutions are much more complex than these simple characterizations might lead us to believe. Each institution has its own unique funding structure, asset liability repricing mismatches based not only on the structural characteristics of this particular market and product offering, but also on the impact of the current crisis and the government countermeasures on its credit liquidity risk exposures.

For example, many large banking organizations have publicly disclosed that they have asset sensitive positions suggesting an ability to benefit from increases in short-term rates. Such characteristics are no doubt influenced by their significant holdings of excess reserves and other short-term liquid assets taken on during the crisis. Monetary policy tightening will entail draining reserves at some point. And as institutions reconsider their liquidity management, subject to new stronger liquidity requirements from supervisors to be sure, their current asset sensitivity might be expected to decline.

And the behavior of various types of customers and instruments may be difficult to predict as the economy and financial markets emerge from this highly unusual period. Thus even larger asset sensitive institutions may need to deal with more complex and difficult interest rate issues than might be thought.

On the liability side of the balance sheet, banks and other depositories may be facing unusual uncertainty about the future behavior of non-interest-bearing and low interest deposits. As you are well aware, these deposits helped boost the net interest income of depository institutions. A number of institutions both large and small posted increases in such deposits over the past two years as a result of a flight to quality by consumers and small businesses from less sound intermediates, money market funds and other short-term investments. Moreover banks themselves aided by the expansion of the deposit insurance have competed heavily for such deposits as potentially more stable sources of funds in the crisis environment.

Importantly such newly acquired low-cost core deposits may not be as stable or as interest rate insensitive as similar deposits may have been in the past. Without a doubt consumers and small businesses are eager to raise their returns on short-term deposits and institutions may have to compete even more strongly for such deposits once short-term interest rates begin to move higher.

Forecasting the behavior of depositors and the business strategies of other intermediaries has always been a challenge for depository institutions and it will be even more challenging as we exit from the current policy and interest rate environment. These challenges would seem even greater for the liability sensitive institutions and a significant number of community banks appear to fall into that category.

As competition for low cost deposits has increased, many community banks have been forced to increase their reliance on wholesale funds including brokered deposits, which are significantly more interest sensitive and less stable, than traditional core deposits. At the same time, many community banks in competition with securitization markets and larger institutions for consumer and small-business loans face challenges in acquiring good-quality short and intermediary duration assets to match their shorter term liabilities. Many community banks have increased their holdings of longer-term mortgage assets including mortgage securities guaranteed by Ginnie Mae and the government sponsored enterprises in an effort to enhance both credit quality and earning asset yields. While such holdings advance public policy interest in reviving the mortgage market they nevertheless pose potential for increasing interest rate risk exposures in part because of the embedded options in residential mortgages.

Additionally some banks appear to be assuming more complex exposures to Interest Rate Risk through purchases of structured products. The recent crisis has focused attention on the problems and complexities of structured products in the form of collateralized debt obligations, which carved up credit risks of underlying assets in their various tranches. A product that it turned out too few investors understood. But similar lessons were learned with regard to Interest Rate Risk management in the early 1990s when many institutions purchased various types of structured collateralized mortgage obligations with embedded interest rate options that were not fully understood and then incurred substantial and unexpected losses when interest rates rose in 1994. Many CMOs turned out to have durations that fluctuated sharply in response to even small changes in market rates resulting in significant declines in the value of the instruments and in many cases increasing asset liability mismatches they were intended to mitigate. Capital losses as longer-term interest rates rise are a risk facing even asset sensitive banks.

As bankers prepare to meet the uncertainties that lie ahead, they must not forget these hard learned lessons and they must make sure they fully understand how the securities they purchased will perform in different economic and financial market environments, including an environment of rising short and long-term interest rates. Because of the potential complexity of Interest Rate Risk exposures at individual institutions, supervisors have for many years pointed out the need for bankers to use sound practices for managing these exposures. Employing sound practices becomes even more critical in light of the current uncertainties surrounding the timing and impact of changes in interest rates.

There was concern about the risk to banks from interest-rate changes that led the supervisors to issue the recent advisory on Interest Rate Risk Management. That advisory reminded institutions of guidance dating back to the mid- 1990s. Other speakers at this symposium will no doubt summarize and expand upon the guidance in that advisory but key principles of risk management apply to Interest Rate Risk as they do to the management of other risk.

These principles articulate the need for appropriate corporate governance including actively engaged boards of directors and senior managers. Adequate policies, procedures and limits to guide the institutions in the Interest Rate Risk management process are also needed. Robust Interest Rate Risk measurement and reporting systems that focus heavily on stress testing of both alternative interest rate scenarios and the affect of key behavioral assumptions are the result of such tests. Strong internal controls, structured to ensure the integrity of all elements of the Interest Rate Risk management process. As the recent crisis has emphasized, senior managers must actively engage in the measurement and assessment of risk exposures.

Given today's technologies, even some small banks are using reasonably sophisticated measurement techniques to assess the impact of different interest rate scenarios on the different types of interest rate risks that these institutions are exposed to. These risks include basic repricing mismatches that are most sensitive to the changes in the level of rates, exposures to different yield curve shifts, twists, and slopes, basis risks which arise in repricing differences in instruments with similar maturities and the risk that both explicit and embedded interest rate options can pose to the performance and safety and soundness of an institution.

Clearly every financial institution regardless of size must understand the risk it is taking and how to control and mitigate that risk. We have seen too well and too painfully in the past several years, in the largest banks and in the smallest, what happens when systems and management understanding are not commensurate with the risk being taken. The consequences fall not only on bank owners, staff and customers, but potentially on the entire economy. We cannot allow that experience to be repeated. This conference is one step to making sure that Interest Rate Risk does not undermine the safety and soundness of our nation's most important lenders, banks, thrifts, and credit unions. Thank you very much.

>>MALE SPEAKER
Well all right then. This is a tough act to follow for our first panel. What we have here in terms of scheduling is this panel is scheduled to go until 10:15 when we will have a coffee break. But before

then, let me introduce this panel. This panel is primarily focused on issues associated with Interest Rate Risk that community financial institutions face. I'm pleased to introduce Christopher Spoth. Chris is a Senior Deputy Director here at the FDIC where he oversees much of the agency's supervisory program. Chris has had a great career here at the FDIC. He has held a series of positions in our Division of Supervision and Consumer Protection and has earned a reputation as a respected and effective executive. Chris has a lot of experience with community banks and I think it makes him well-suited to lead this panel. Chris, we appreciate you being here to participate. Take it away.

>>CHRISTOPHER SPOTH
Thank you so much for the very kind introduction and good morning on behalf of the FDIC and in particular the Division of Supervision and Consumer Protection. Welcome to the Interest Rate Risk Symposium. I can't think of a better time, as was introduced already, to be talking about this project.

I have the pleasure this morning of moderating the first panel. We will hear views on Interest Rate Risk management for the predominant form of banking in this country, community banks. We have heard from Chairman Bair and Vice Chairman Kohn earlier that we need to be focused on the approaches to risk management. Interest Rate Risks are now at historic lows. One in five banks has more than 50 percent of its assets in longer-term assets just now. It is vital for insured institutions to have strong processes for measuring and mitigating risk posed by potential changes in interest rates.

Joining me this morning are five experts with a wealth of knowledge and experience in risk management. We will hear from each of them and then open the panel up for conversation and discussion after each presentation. Let me first turn to our first speaker who is well known here at the FDIC. That is Edward Krei. He is managing Director of the Baker Group, an investment firm specializing in investment portfolio services, asset liability management and financial strategies for community based banks. Ed has been a regular presenter here at the FDIC and at the FFIEC in our training initiatives and at the Federal Reserve. Ed will be discussing his views on Interest Rate Risk exposure and management in the current risk environment. Ed, thank you so much.

>>EDWARD KREI
Thank you Chris. I'm going to use a lavalier mic and just set this down if that's okay. We were offered that so I'm going to take advantage of it.

I was laughing with Jim Embersit talking earlier about the FFIEC risk management conferences that were sponsored by the FFIEC back about 12 or 15 years ago, Jim. The early 90s through the mid 90s I believe. And we were reflecting on one where I was introduced by a regulator from Texas. I'm from Oklahoma. The gentleman from Texas introduced me as Edward Krei from Oklahoma where the state flower is the satellite dish, the state bird is the mosquito, the state whine is why can't we beat Texas. So we will get this Oklahoma thing out of the way right now and move past that.

What I'd like to do is talk about four things. Four broad themes, if you will. Number one, consider the unique name of each bank and your unique situation and your unique market, market presence and competitive environment. And you'll see here I refer to a handout. There is a handout -- I assume it will be made available on the FDIC website -- that has historical performance data for community banks of different size stratas. Less than $100 million of assets, $100 to $500 million of assets. It's bifurcated between C Corp. and S Corp. I've also included some regional bank data that I've run over the past six months of so for different areas. Kansas City, Chicago, Seattle, Kansas, Florida, Arizona, different areas that we have worked in.

And maybe as background and perspective, our little company is based in Oklahoma City. We work with about 700 banks in 30 something states. We work exclusively with community banks. That's who we do business with. No other financial intermediaries or financial institutions, no pension funds, no insurance companies and so forth. We will look at the modeling considerations.

We will look at developing and implementing written strategies and I hope you will put a star and asterisk by that. I will talk to you like I talk to the students at the banking schools or even examiners. This will be key, the last two points that I would like to emphasize today is translating the output of a model, translating the measurements into action in the institutions. And lastly getting the most out of your asset liability committee.

In your handout I referred to there are some things about effective financial management processes and banks. There is an example of a bank that we believe has an ALCO agenda that we believe works very well. You notice that it ends in a call to action. It ends with what will we do now. What are the significant risks that we've identified and do we have confidence that we are measuring risk the right way and how do we implement change in our balance sheet, the necessary change to manage risk. That is the absolute key. It is not to let ALCO evolve into an ineffective process in your institution. As Tom Peters said have that bias for action.

One last point on the effectiveness and efficacy of ALCO would be to make Interest Rate Risk management just as robust an effort as you undertake in managing other financial risks in your enterprise. Whether they are credit risk or liquidity risk, think back to what happened a year and a half ago with liquidity risk. We are encouraged to have contingency funding plans and to look at worse case scenarios. I will use the term black Swan scenarios from a liquidity standpoint. I suggest you do that for Interest Rate Risk management. Not just 400 basis point shocks but look at other extreme situations that could impact your institution and your institution's balance sheet. You are unique and different. Some banks -- some banks own collateralized -- you heard from chairman Kohn, own collateralized debt obligations whether it be trust preferred back or synthetics. Some institutions own private label mortgage securities. Have we focused on the uniqueness of our balance sheet? Have we focused on the things that really create risk in our institution? Those are the things that I hope that we are looking at from an Interest Rate Risk standpoint.

Even if you don't own those, look at your core deposit modeling. Look at what transpired in 2001, 2002, 2003 -- what the regulators referred to as surge deposit growth. Have we seen -- in certain parts of the country you will see on these data sheets that I refer to -- we will see certain parts of the country have seen incredibly strong deposit growth in their markets. Is that surge deposit growth or is it sustainable and will it remain with you. What happened between 2003-2005 when rates rose? What happened to your bank? These are the key points that I hope you will take back and personalize in your institution. So we managed liquidity risk in a very, very focused and strong fashion.

Credit risk. We ask ourselves predictably what am I looking at that will tell me if I have an elevated or increasing credit risk trend. Focus on trends in both Interest Rate Risk and the way we have done this in credit risk. We ask institutions what are the trend of the number and volume, the percentage of loans approved with policy exception in your institution. Is it going up or down? If it's going up, what are you doing about it? We ask, do you look at the dollar weighted risk rate of the key sectors of your loan portfolio looking for very subtle trends, very subtle increases in risk profile. Have we looked at those trends in our balance sheet? Again, you heard earlier the lengthening duration of assets, what has happened with my asset duration vis-à-vis my liability duration. What happened with the level of optionality in dynamic cash flows in my balance sheet today vis-à-vis three years ago or five years ago? That's one of the most significant points I hope you can glean from my comments here. I'm sure of the others as well. To understand cash flows. Understand cash flows.

When I got out of college I went to work and was doing some training for Arthur Andersen. I will have a spiritual cleansing and say Arthur Andersen. We studied interest rate risks and we studied the banks in -- there was a bank in Michigan in the early 70s that failed because of -- is that right, in Birmingham, Michigan or something that actually went down because of Interest Rate Risk. Later we studied what happened with First Pennsylvania. I believe it was 1979 or 1980 if I remember correctly. We studied these events. We asked what happened. What is going on? And one of the guys, one of the old venerables at Arthur Andersen said this, made this comment, it's not exactly right but I love it, he said yield is an opinion but cash flow is a fact. He said understand cash flows.

If we had focused on understanding cash flows, many of the banks -- it's not many, maybe 10 or 15 percent, many of those banks may not have jumped into the private label mortgage market or the collateralized debt obligation market. So focus on understanding cash flows for the community banks here, understand the dynamics of optionality. Understand where there are explicit options and embedded options in your balance sheet and make sure you are modeling those events correctly. That you are modeling those and making your best effort to look at how the cash flows move. Optionality measures the velocity of change in duration. That is driven by the volatility of cash flows.

I will make one or two comments about using the right tools, understand these tools and what they mean for you and the applicability of these tools for your balance sheet. One last comment before I get back to the bullet point. Which measure of Interest Rate Risk is appropriate for your bank? We are asking this question. Is it duration? Is it GAAP or income simulation or economic value of equity? I will use one example, if you have a bank with a 13 month agency bond funded by a 12 month CD and you do income simulation you will look very benign. One year of income simulation, very benign. Two-years of income simulation, might pick up something different. That is the reason you are encouraged and it's appropriate. We do two years of income simulation.

Now a more extreme case, let's say a 26 month asset funded by a 24 month CD. If you do two years of income simulation what's it going to look like, very benign. No change. That is simple. Now compare that balance sheet, 26 month asset with a 24 month CD. I know this is very simplistic but now let's talk about a 26 year asset with embedded optionality funded by a 24 month CD. Or a 26 month asset with no optionality. That is the situation where we want to do either EVE or some value at risk calculation. Maybe not the cookie-cutter FAS 107 value at risk calculation, but some economic value of equity shocks. Value at risk calculations have significant meaning today particularly for institutions that have complex assets and institutions that have extended asset durations and maintain liability risk. So it's important to look at the options we have and which risk measurement technique makes the most sense for your unique situation.

Let's continue real quickly. Each bank has distinct characteristics. Again you will see this in the next slide please. A core deposit base. I talked about surge deposits and so forth. I talked about these points. A one size fits all is not reasonable. Continuing to the next slide. I've included a couple of thoughts of the day. I love these. I think it's in yours as well. Da Vinci said the painter will produce pictures of little merit if he takes the work of others as his standard. Don't think you have to have the same assumptions and the same modeling techniques as the other banks. I hope you will spend time making this unique to your own bank, the size and complexity of your bank and your competitive position.

Continuing to the next slide please. The gap between -- the variance between -- top quartile performance and bottom quartile performance. We have the highest performing. I do a high performing bank cut in these datasheets. I referred to them in the handout. It's as wide as it has been in 30 years. In fact we have seen as of September, I believe it is. You can help me with the numbers, I believe it is about 28 percent of the banks have lost money but the good news is 72 percent of them are still making money. Let's look at these lists and trends and these differences and again the unique market conditions and circumstances that we are working in.

De novos are struggling. Small banks, this is unique, small banks have generally performed about as good as larger banks. Geographics do make a huge difference. It's not just the sand states. Be prepared for rising interest rates. I love this quote by Warren Buffet. Until the tide goes out you don't know who's swimming naked. Don't wait for the tide to go out until you see how your balance sheet and your earnings and your margin hold up to higher interest rates.

Build assumptions, next slide please. Assumptions that reflect the uniqueness of your bank and market conditions and so forth. Specific risk profiles and trends, understanding the magnitude of risks, there is no question that one of the biggest uncertainties that we have, challenges we have, is modeling non-maturity deposits. We could talk about that all day, but you will have to make estimates. As Chairman Kohn said this morning, we are treading on new ground here given the low interest rate environment that we have. Continuing to the next slide please.

I ask which risk measurement technique is most appropriate, EVE, vis-à-vis duration, vis-à-vis earnings, exposure, and these are things that you should conscientiously focus on in your institution. How much interest rate exposure is being captured by one or two years of earning simulations. Consider modeling black swan events, worst case scenarios. Much like we do in contingency funding plans. It is not just a 400 basis point shock. We do 400 basis point shocks in the model we run for a bank that we will run in-house.

Look at the other extreme cases that might impact your institution's rate exposure as well. Your risk exposure as well. Again it's important to look at the interaction between Interest Rate Risk with credit risk. Interest Rate Risk with liquidity risk. As an example, private-label mortgages, rates go up, the senior tranches might benefit from that by higher cash flows as the lower option mortgage holders refinance out of those cheaper mortgages. Senior tranches can benefit. Subordinate tranches might very well get slammed. This is important for you to know what you have and what you own in your balance sheet.

Again focus on your unique situation and your unique portfolio of assets. Continuing -- one last point there. Watch trends. Watch the level of risk using these techniques. The level of risk you are taking over a span of time. Don't focus just on one snapshot and lose perspective on where you've been or where you might be going. Next slide please. Every ALCO should be ended with a call to action. I've included a sample agenda in your handout. Have a plan, have a strategy. I think this is one of the key points again. Volatile times, keep things simple.

We believe the vast majority of community banks should focus on managing Interest Rate Risk on balance sheet. That should be the first priority. Again keep things simple. Educate and engage your board, your ALCO and your management. Next slide real quickly. This is from -- my dad was a tractor salesman. He sold Alice Chalmers tractors. One of the old farmers he used to call on was with the implement dealers. This was one of his favorite quotes: there is little education in the second kick of a mule. You get all you need the first time.

So let's look at what we have learned. Might learn going back to 2003-2005. Look at what we might learn from this cycle, from prior cycles. Again focusing on our unique circumstances, if you will. Next slide please. Use the output of a model, use the output of the model. Interest Rate Risk analysis to develop and implement management strategies. Some of these might be out of order I guess. Use the output of the model interest rate analysis to develop and implement written strategies. Use the model to test alternative strategies. This is an absolute key as well. Simulate contemplated transactions, large transactions and changes in your strategy before you pull the trigger. That means you have the ability to run this in-house.

Don't rely exclusively on, for example, call report models. Only the simplest smallest banks can get much out of the call report based models. Document, needless to say, document your strategies and your assessments very, very clearly. Some of these I may have taken out of order. Slide 12 please. A couple more thoughts for the day. Success -- slide 12 please. Success comes from doing ordinary things extraordinarily well. Again keep it simple. Focus on the things that are most important to your institution. As Winston Churchill said, success is never final. This is an on-going process, it's not a one-time event. There's not one thing to focus on today, it will be something we focus on over a continuum. I appreciate your attention.

>>MALE SPEAKER
Thank you so much, Ed. We appreciate the perspective you bring from your real-world experiences that I know go beyond Oklahoma and Texas. What is the state bird in -- no, I won't start with you on that. Let me introduce the second panelist here. We will go from Ed with a perspective on advising banks right to a banker who has responsibility directly for such matters as we are discussing. Kevin Roadnight is the Chief Financial Officer of Great Western Bank located in Watertown, South Dakota with nearly 5 1/2 billion dollars in assets. Kevin has held a number of senior roles in risk management, internal audit and finance at Great Western's parent, the National Australian Bank. Kevin will discuss issues related to extended liability maturities at midsize institutions. Thank you very much.

>>KEVIN ROADNIGHT
Firstly, I would like to thank everyone for the opportunity to address the forum. It's the first time we've been able to participate in an FDIC symposium such as this so I do thank you. I will flip to the first slide please. Just quickly as some very brief background about Great Western Bank. I will call it GWB for short. Great Western Bank is a midsize community bank that operates in a footprint of seven states primarily throughout the Midwest into Colorado and Arizona. In 2008, the National Australia Bank as Chris mentioned purchased GWB and we value it as a very strong component of the portfolio of banking throughout our entire group. Great Western Bank, backed by its parent, the National Australia Bank, continues to focus as a core community bank while backed by a very strong parent. Great Western Bank still operates effectively in the same manner as it did before the acquisition by the parent. Now I'll just move over to the next page.

Interest Rate Risk management in GWB is seen as a core competency just the same as liquidity risk and credit risk. Our philosophy is not to speculate or try and predict interest rates. We are very cognizant of where we are in the interest rate cycle, but we don't take bets; that's not our business. As you will see from the chart at the bottom of the page there and hopefully it comes up, there's a ten-year graph there of how we manage and the history of our net interest margin. We structure our balance sheet such that we maintain our net interest margin over time. Thankfully over the ten-year period our net interest margin has remained relatively stable between our target between 3.8 and 4.1 percent. We have been able to do that by structuring our balance sheet by understanding what our key liabilities and asset profiles are.

We do a lot of work in profiling and understanding both our asset behavior and our liability behavior. We structure our investment portfolio and manage carefully our duration on the investment portfolio. Really looking at maintaining that point of duration of 2-3 years. While it does mainly sacrifice yield occasionally, it does give us stability in terms of our earnings profile. On the asset side, we don't generally lend longer in terms of fixed term. Where we have done that and we have started some programs recently, we are embarking on specific hedging of those assets over five years. This structure together with carefully managing the mix of our pricing on both our loan and deposit mix has enabled us to really match the behavior of both our loans and deposits. Flip to the next slide please.

Core to the overall structure of Interest Rate Risk management in GWB it's vital to understand both the nature and extent of risk you have in your portfolio. Significantly it is important to understand both mismatch and what we have been focusing on most recently as well as the extension risk in the portfolio. Particularly the MBS securities as mentioned before by the previous speaker.

It is important to define your tolerance for Interest Rate Risk and that tolerance must be consistent with both the board and management's level of expertise in managing that risk. You need to be very comfortable with it and you need to establish a regular insightful governance framework which sits over the top of that and monitors and makes sure basically that you are within the bounds of both your expertise and limit structure that you establish. We have very formal procedures that are established on that monthly basis. We have various different risk measures and limits that we maintain our portfolio to. Flip to the next slide please.

We look at both balance sheets and earnings measures for maintaining our Interest Rate Risk management process. Both value at risk models and earnings at risk models and sensitivity and shock analysis. We've become a little bit more sophisticated with the help of our parent over the last 18 months in terms of providing some very detailed value at risk modeling and earnings risk modeling and that has become very, very insightful to us, but it has not necessarily changed the way we manage our balance sheet position. It is more validated.

Any model is only as good as the inputs that you provide to it. Important as they are, the key inputs that need a lot of validation and a lot of back testing, and a lot of understanding are the customer behavior. As we know and as we have also heard, that behavior may change significantly over the coming periods. It's important to make sure those assumptions are very valid and up-to-date. Regular reporting and oversight is critical. We do have monthly ALCO meetings, which are chaired by the Chief Executive Officer and encompass all of the executive management team as well as some representation from our parent. The ALCO pack and associated information is then disseminated to the board on a monthly basis and it is very well discussed at the board level as well.

It's important that, as I mentioned, that regular reporting and oversight is critical. But, it's also important to understand where your investment portfolio is on a daily basis. If there's a need to respond, then we do respond, but, as I mentioned, our position is really to stabilize earnings over time.

So we are not in and out of the market particularly in our investment portfolio. We just maintain stability and look at our duration. Flip to the next slide please. The strategies that we have been able to employ really focus on the duration and extension risk in the investment portfolio as well as the deposit and lending profiles that we have been managing as well. We have sacrificed some yield it would be fair to say by shortening our position in our investment portfolio and that is something we have been concentrating on doing too -- particularly over the last six months is moving more out of the 30 year final maturity bucket securities and more into the 15 year securities and looking also at other securities such as bullets and real pass through securities.

At GWB we also balance our balance sheet and what that means is it is incumbent upon each of our regions and down even to the branch level where we encourage everybody to balance their balance sheet. You gather deposits to lend funds and you try as much as possible -- I also mentioned the duration of that profile. We focus on retail funding. While Great Western has a very stable AA rated bank as a parent, we don't use the wholesale funds that are available to us through that source. We really focus on our core community bank roots. We know that cheap wholesale funds that are in the market at the moment won't last for ever. And we are not going to sacrifice our customer base for the sake of chasing cheap money. Flip to the next page, which is my final page you might be glad to know.

There are challenges in every strategy and what we have found is that there really is a need to be very disciplined and methodical about the approach. Some of the key challenges particularly in community banks as we wrestle with credit quality and other issues. Time and resources become constrained, but it is very important that you allocate the time and resources to Interest Rate Risk management. As I said before, it's of equal importance as credit and liquidity risk.

Some of the data can cause challenges particularly through banks, which have experienced acquisitions. Some of the data can blend and the behavioral characteristics again can be somewhat uncertain. Again that's a reason to go back continually and understand and validate those assumptions, which you are using in your risk modeling. We balance our liquidity requirements. We are not going out and raising a whole bunch of deposits just so we can build up the balance sheet through the investment portfolio. It's important that we borrow from our customers to lend to our customers.

Derivatives -- I mentioned before that we have started to hedge on a one-to-one basis on some of our longer-term products. Derivatives should only be used where there is the competence, understanding, and control systems available to be able to monitor and manage those. We don't speculate in derivatives and never will.

We don't actively use FHLB debt at the moment. We don't see that as a source of funds that we necessarily require at this present point in time. Although we are looking out at raising some longer-term CD deposits, we are within our core business franchise. Actually experimenting at the moment of going out even to five years. In summary, some of the key things that we do. We really maintain the duration of our investment portfolio. That has been difficult in recent times particularly with the volatility in prepayment fees impacting the duration on the MBS portfolio. As I've said before, we do try to manage that to between 2-3 years. We manage our liquidity very carefully. We minimize wholesale funding and wholesale deposits. We don't have any brokered deposits. We don't intend to have any brokered deposits.

The core customer community banking model of sticky deposits and customer relationships is important to us. We are very sensitive to pricing in the market place both in the deposit side and the asset side and we are ready to respond at any time in terms of pricing changes. As I mentioned before, we hedge, but only where we are very, very comfortable with that and we don't speculate. And that is really the snapshot of how Great Western Bank is operated. It is liquidity management and Interest Rate Risk management profile over the last ten years. We have managed at various cycles and also managing some significant growth through the last 18 months as well. I just encourage you to maintain governance and due diligence and a lot of work and resources into Interest Rate Risk management. Thank you.

>>MALE SPEAKER
Thank you very much Kevin for the introduction and the perspective of your institution. Fairly large size for a community bank and with a world-class parent standing behind it. At the FDIC we are primary federal regulator for more than 5,000 banks. Most of those are smaller community banks. Jeffrey Tompkins is Chief Operating Officer of Community Bank with total assets of nearly $500 million located in Canonsburg Pennsylvania. In addition to his many years in bank financial management, Jeffrey has also worked as a consultant helping banks improve their asset liability management process and interestingly he started as a bank regulator. So we welcome you to our audience today. He will be talking about extended liability maturities for small institutions as well. Thank you so much.

>>JEFFREY TOMPKINS
Good morning and thank you very much for attending. I started my career at the FDIC, jumped over to the OCC, sorry but attended a great class and they said if you want to give an effective presentation make sure the audience walks away with two or three things that they can take back to the bank. That's what I'd like to do today. Talk a little bit about some issues that affect community banks, give you two or three specific strategies you can take back and hopefully implement as soon as you land back in your ALCO committee.

So who is Community Bank? $470 billion in assets and we are in Southwestern Pennsylvania. 109 years old. We happen to be sitting on the largest natural gas play in North America called the Marsalis Shale. It's a great, great time to be a banker in Southwestern Pennsylvania. Ed, I'm getting to meet all your friends from Texas and Oklahoma. So I can't tell you how many license plates we are seeing in our parking lot, but a great, great time. And quite honestly, it has softened the landing in Southwestern Pennsylvania not that we have a lot of economic problems, because real estate has always been pretty stable but the influx of all of this new capital in terms of drilling has just been a wonderful boost for the region. And we got slots and table games so we have that going for us in southwestern Pennsylvania as well.

Just some factors that affect -- next slide please. Factors that affect smaller institutions. Just for a quick show of hands how many bankers under $1 billion do we have here today? Okay, we have a good bit. A lot of these comments are directed to you. Over $1 billion as well, but just some of the strengths of these banks. Typically you will see a stable core deposit base and they don't have the level of volatile funds that you'll see in perhaps some of the bigger banks. The weaknesses however are pretty dramatic and again there is less room for error in the smaller banks particularly because the margin dominates so much of the net income. Again if you will make a mistake in the net interest income side, it can really impact your profitability.

There is also less access to capital markets, less use of derivatives. That's for a number of reasons. A lot of that can start at the board level or senior management and quite honestly the regulators want to make sure the smaller banks know what they are doing so there's a bit of reluctance to jump in on the derivative side. What is our approach to Interest Rate Risk management? Very simply, we don't bet on interest rates. As Kevin said, we want our margins to be -- to stay the same regardless of what happens to interest rates so again we are not positioning our balance sheet to take advantage of rates going up or down. If I knew what interest rates were going to do, I would not be standing here, I would be sitting on a beach somewhere in the Bahamas. So we don't bet on what interest rates are going to do.

Also it's really important that smaller banks know your customers and educate your customers. We spend a considerable amount of time sitting down with our larger depositors, understanding what their business model is, understanding what their cash flow needs are and quite honestly talking to them about what is going on in the market. We keep our competitor ads. We had a bank in our market that was having problems, a bigger bank. Quite honestly they put a really ridiculous rate out there most likely to retain their customers but of course, our phone rings. What will you do with the rates? Very high rates, very short term. We are able to talk to our customers and say what happens when this CD matures. And of course the CD matured and the new rate they were offering was something considerably lower. We will pull that ad back out and say look what happened. We find educating our customers really benefits us because they get a sense of what's going on in the market.

Third, don't chase hot money. How many of us get an email every single day or every single week from somebody somewhere in the country that loves our bank and wants to put $3 million or $5 million in, just give me the rate. We don't chase it. Don't need it, don't want it, don't know them. We don't know what they're going to do when rates move so quite honestly, we do not chase hot money.

Fourth, don't buy what you don't know. If a capital markets person can't explain it to me in ten minutes, I don't buy it. If I can’t explain it to my board in five minutes, we don't buy it. If my board can't explain it to a regulator in two minutes, we don't buy it. Don't buy what you don't know. You'll get in trouble. And we really balance our exposure to our investment portfolio. If you think about it, your customers have all the options on the lending side, they have all the options on the deposit side. You can put whatever you want in your contracts, your customers have all the options. The only place they really don't have the options is in the investment portfolio. So that's where we try to fine-tune our balance sheet and make things work.

So a couple of strategies you guys can take back with you. This is one thing we do at Community Bank, we look at the depositors that make up the top 25 percent of our total deposits, who they are, what their balances are, what the trends in those balances are and then we break that deposit list down into two additional lists. One, we rank those same clients by pricing risk, high, medium or low. How likely are they to come back and ask for a different rate? And we also take the same list and we run it by liquidity and rank those customers high, medium or low. It's a really interesting exercise if you haven't done it. Do it individually in a separate room and see how you would rank your customers and probably better, do you know those customers. That's the bigger question.

If you see a customer that is high pricing risk, high liquidity risk, I will say you have some problems. You have some hot money in your bank and you need to be careful. Interestingly enough at our bank we have a lot of customers that are high pricing risk and low liquidity. You would say how can they be high pricing risk and low liquidity. It is very simple. They will never leave our bank, they love us, but we know they will call if rates move. So we will have a conversation with them. Rank those.

You might want to consider ranking your big depositors and see where you think they shake out and then develop a game plan for those specific customers. Some other things you can do to extend your liabilities. Common sense, stay way ahead of those high exit rate maturities. If you are waiting until the seven day grace period after they've matured to have a conversation it's probably too late. We like to get ahead of them three or four months and say here's what's going to happen. Again back to educating your customers. For those customers that are seeking higher yields, we have a product we have implemented -- ours is a 24 month ready access -- essentially a CD that has a two year term, fixed rate but the customer can come in and break it anytime they want. We did not invent it. It's been in the market but a lot of banks don't use it. We price that product a little bit higher than the money market and a little lower then the two year. For a client that says I don't want to commit to two years. Let's do this, let's lock you in for two years but if you want your money, you can take it.

What we found is they don't take it. Because you don't chase hot money. Remember, if we go back to the prior slide, don't chase hot money. They don't take it. You will get a little bit of that volatility. If it's a big enough dollar, we break it into four or five CDs so if they do need some liquidity they can break one but not all. It's a great product. Some banks are going 36. I think that's a little long. That will increase your volatility. But two years actually has worked very well for us. We actively promoted our three year ladder as well on the CD side. Quite honestly we have shifted that ladder now and it is more of an 18 month ladder so again we are trying to get customers that are looking for yields and we will do a 6 month, a 12 month, and an 18 months product. It will buy us a little bit more time, but again educating the customer. We can sit down with them.

And last, of course, is the Federal Home Loan Bank which we have used exclusively. The best time to buy money is when it's cheap, even if you don't need it. That is certainly an option we continue to look at. So effective presentations give you two or three takeaways. I hope you got two or three takeaways. Thank you very much.

>>MALE SPEAKER
Thank you, Jeff. I did get a couple of takeaways from that and I appreciate it. Thank you very much for teeing up our next conversation. We've heard from a larger bank, a smaller bank and now the Home Loan Bank System that was just mentioned. As Executive Vice President and Director of Financial Management at the FHLB of Atlanta, Wes McMullan is very familiar with the challenges facing community banks as they search for funding on terms that fit their needs, shorter and longer term and particularly Interest Rate Risk management. Thank you so much.

>>WES McMULLAN
Thank you and thanks Chris for that plug. I'll give him his $20 later, afterwards. Also thank you to the FDIC, we really appreciate the opportunity to be here. The Home Loan Bank System has really been in the press a lot about some of these issues around credit so we really welcome the opportunity to talk about Interest Rate Risk because that's really our core benefit to community banking. We see some challenges out there both on the asset side and the liability side. And then we think there are some opportunities out there from the solution side. I will try and touch on some of the things we are seeing from our customers and some of the things that we are putting out there as potential solutions as we look at the potential for rising interest rates.

We are an SEC registrant so we have to go through the forward-looking statement, legalese. On the challenges side, Vice Chairman Kohn talked about asset sensitivity and liability sensitivity. Obviously there is a huge percentage of assets that are fixed rate. We see some challenges out there on the floating-rate side as well in discussions we have had with our customers and I'll touch on that in a minute. Obviously there's been a lot of discussion on the liability side. We see some challenges there not only with deposits, but with some of the other tools that you have.

And then we will spend a few minutes talking about some of the solutions that we see out in the marketplace. When you are looking at solutions, long-term deposits or core deposits, the Home Loan Bank still thinks that is the core for community banking. That is something we stress when we are working with our customers especially with the asset liability management group. There have been some higher profile cases out there where some of our customers have used a higher percentage of advances, but the vast majority of our community banks use somewhere between 5 and 8 percent of their assets or their funding in Home Loan Bank advances. We think that's really the right place to be and you use those advances to stick them in and fill the holes where you can't do it in the core deposit market. We will talk a little bit about that as well.

There are other options out there obviously off-balance sheet. We do think there are some challenges there especially that community banks face -- not that they aren't great tools and we are a huge user of off-balance-sheet items -- but there's a lot of accounting and operational issues that go along with that and sometimes that's not the best place to be. Go to the next slide.

I mentioned on the asset side there has been a fair amount of talk about the fixed rate side, fixed rate assets on the asset side. Obviously that's a challenge as interest rates start to rise. What we are having a fair amount of discussion around with our customers is on the floating-rate side. That is prime based assets that have been floating down as rates have come down over the last three or four years. Our community bank customers have been successful in putting interest rate floors in those floating-rate loans and that's been great because they have been able to widen their margin as that has happened.

What we are looking at now is as rates start to move back up, it will be awhile before those assets start to reprice because we are so low relative to that floor that the first about 175 basis points of move will not change the yield on that asset. There was some conversation about modeling and do you shock rates up 100 or do you shock rates up 200, how far do you run them? Make sure you are careful here because sometimes if you shock rates up 200 basis points, you are showing that an asset is starting to reprice when in reality it has sat there for a fairly long period of time. We have been working with some customers on solutions on how to fix this as they move forward.

Obviously on the funding side -- next slide. This is a slide for our Community Bank customers and where their funding costs have been over the last few years. No surprise that number has come down significantly. It's come down for two reasons. Obviously interest rates are very low and also the term structure of their deposits is also very short. We see a lot of repricing risk there and then if you look at the advance activity as well, a lot of that has been very short term. The bulk of the advances we have done over the last 18 months to 2 years have been very short term, one month, three month kind of product.

The problem exists both in the deposit space and also in the wholesale space. What we have done here is try to put those two slides together. The top piece is your loan rate on prime based assets and the green bar is your funding as rates start to rise. What will happen obviously as rates start to go up, that loan rate, especially on the floating rate piece is going to stay stuck at six and your funding costs will start to go up and obviously that will start cutting into your spread. We have looked at a couple different solutions here. I will not make this a commercial for Home Loan Bank activity, but we do think on the next slide, you have a lot of choices as you go through your asset liability process and you obviously have the fixed and floating rate component.

If you are looking at deposits, you are looking at home loan bank advances. This slide builds so you can keep going. You start looking at the structure of both those deposits and Home Loan Bank advances and then you get into whether you want to be a purchaser of options or a seller of options. I think it's pretty well-known that a lot of the assets that are on community bank balance sheets have a lot of sold options. We talked a little bit about that. We have been focusing primarily on the purchased option side. A lot of our products that we have been working with customers over the last 6-8 months have been on the purchased option side. Trying to figure out where your exposures are on the asset side and then plug in the specific product that may fit to help offset some of those options you have sold.

I will jump forward in the interest of time to slide ten, which is a fixed rate credit product with a cap. I've got one more. This is a combination really of our fixed rate advance and then going out and purchasing interest rate caps but putting them inside and on balance sheet products. So you get away from some of the issues associated with off balance sheet. This locks in funding at a fixed rate, but it has a very unique feature as rates start to rise. And if you go to the next slide. This is the structure of it. It's a three-year product. It has a three month cap struck at 2.75. It cost you about 28 basis points running so it's not extremely expensive protection as we look forward. Please move to the next slide. The interesting thing about this product is it is doing exactly what you want in a rising rate environment. So the orange bar represents the fixed rate hybrid and the green bar represents the fixed rate with the cap. As interest rates start to rise as put up there by the blue line, the rate on this advance will actually go down. So it will be doing exactly what you want as most of your deposits or your other short-term liabilities start to rise in rates. Obviously it can't go through zero. That does create some challenges in this environment because we are starting from a pretty low-level. But it is, we think a great feature that will help some of our community banks offset some of the challenges that they face going forward in Interest Rate Risk management.

One other product that is similar in nature and that is if you move forward to slide 13, is a callable advance. So once again a lot of short assets, short options on the asset side. This allows you to put some long options on the liability side. You go out and you do a fixed rate advance, but let's say six months from now rates are still low and you want to bring that back in, you have the option to bring that back and pay that off and restructure your liability. A nice way to manage your cost of funds and put your options exactly where you want them going forward.

Final thoughts, they're on slide 15. We do think that you need to have a very robust asset liability management process. You need to have a good understanding of your balance sheet structure and where you have -- where your interest rate views are and where your exposures are. We think that process should be very refined, but I think more importantly you need to know all of the tools that are available to you because you have some core deposit tools and you have some Home Loan Bank advances that can help you really fine-tune exactly where you want to be on the Interest Rate Risk management standpoint and then also there are some off-balance-sheet items. I think the first two choices you have there in deposits and advances are really the best use of your liability management side as you look at Interest Rate Risk. So with that, I thank you and look forward to some questions.

>>MALE SPEAKER
Thank you so much, Wes. I appreciate your perspective on particular products. I think we've come back to talking about some structures and options in those. Thinking ahead now toward the future and building off of what Wes was talking about with some structures, we can talk about the future. Maybe some exchanges and the like. Attention is being directed toward improving the over-the-counter

derivatives markets to reduce counterparty risk and improve price transparency. A few of the largest banks are active across the spectrum in OTC type products. When we look across all insured deposit institutions with respect to OTC derivatives, the largest number of end users are taking advantage of interest rate swaps. We typically see banks entering swaps with correspondent banks to hedge interest-rate risk, but also as this market develops, there may be other options available then the correspondent banks. We are pleased that Garry O'Connor could join us today. He is CEO of the International Derivatives Clearing Group. His company is one of several that have been developing a central counterparty option and that's of great interest to us. Thank you so much.

>>GARRY O'CONNOR
Thank you. First and foremost I'd like to thank the FDIC for the opportunity to participate in this panel. We enjoyed the chance to contribute. And I did something similar, I had the opportunity to speak at the Stern School of Business a couple of months back and it was quite an intimidating session because there were a couple of Nobel laureates in the audience and I was the only person on the panel without tenure and I started my speech by apologizing for having PhD envy and today I think I will start by apologizing for having PowerPoint envy. The good news is I'm getting closer to a skill set I can compete with so I'm in good shape.

How does central clearing of OTC interest rate derivatives fit into a discussion on interest rate management? I think that it has a very significant role to play and a more significant role to play today as we emerge from the financial crisis. The reason for that is when it is not practical for us to match the assets and liabilities on our balance sheet through physical assets we turn to the derivatives market to match those mismatches up. The issue with that is we can sometimes expose ourselves to greater risks than the underlying issue we were trying to address.

We've heard this morning that this is only going to become more and more of an issue for us because of the extremely low rate environment that we are in, which makes it difficult for us to match the assets and liabilities and for the competition for the savings dollar between the federal and private sector. So more and more I would suggest derivatives are going to become an option for people to use. But the issue is that do we end up by utilizing the derivatives market with more risk then we started out.

You might think this is somebody from the clearinghouse trying to scare monger about the risks involved but when you think about the counterparty risk that you take in the derivatives transaction and what the consequences of a default might be not only from the credit exposure but the market risk you might take to replace that hedge and the liquidity risk you might encounter to fund the loss and the reputational risk of having to restate financials, the risk can be very, very significant.

Now in the market, what I'd like to talk about is how the market addresses these issues today and the problems that are involved in that. What Central Clearing brings to the market to try and address those problems and its core function, which is mitigating the credit party risk, but also the benefits you get from Central Clearing once you grease the wheels of the system so to speak. What the market does today to try and address the counterparty credit of a derivatives transaction is it utilizes bilateral collateral. What that essentially does is it transforms your risk from one of counterparty risk to one of operational risk. So what you are trying to achieve is to ensure you have access to sufficient capital at sufficient time to cure a default that you might encounter.

There are some problems with this that have emerged over the financial crisis. There are some very significant problems for a smaller financial institution because the equation is skewed against you a little bit. The reason for that is you are unlikely to have the same operational capabilities as a large financial institution to ensure the collateral is in the right place at the right time. You are unlikely to have influence over the settlement systems, you are unlikely to have the same information set and you are unlikely to have your finger on the same default triggers that a large financial institution might have. Those things are skewed against you.

Further, systemically at a large bank the default of the customer of a large bank can happen in isolation but the reverse, the default of a large bank, rarely happens in isolation. It's almost certain that that will occur with the defaults of other banks and/or with extreme volatility in the underlying markets. So what we have is a system that does a fairly good job of protecting a large financial institution against failures in its client base, but does a fairly poor job of protecting its client base against defaults in large financial institutions.

In the bad old days we really didn't think about that too much, but as we've come through the financial crisis that's really not something that's good enough. That's where Central Counterparty Clearing has a role to play. What Central Counterparty Clearing does is it's a clearinghouse, we partner with a group of clearing members and together we have the regulatory, the legal, the capital and the operational capability to offer clearing services to our clients.

We collect and pay margin or collateral on a regular basis to ensure that the exposures are in a mark-to-market sense minimized. We collect and hold collateral to ensure that the clearinghouse has the ability to cure defaults elegantly when they occur. And we work with those clearing members to ensure that all of our capital is at risk should the controls in place not be sufficient to cover the defaults and to ensure the defaults are mitigated elegantly. Those are the sort of things you should look at when you look at Central Clearing in terms of how strong is the regulation which underpins the platform and how strong are the risk management techniques and what are the clearing members that are involved in helping you utilize the platform.

What that does is twofold. For the individual institution, that helps you mitigate the counterparty credit risk involved in a derivatives transaction and allows you to use that derivatives transaction to isolate and manage the particular risk that you are interested in. Further it also has benefits for the system as a whole because as we have a common charge for risk for everyone, it prevents the buildup of risk in the system without the necessary capital to support it, the AIG type situation. And when a failure does occur, it allows the system to weather that storm without the systemic effects. It helps to address the too big to fail issue. That is the key value added from Central Counterparty Clearing and it frees up the tool, which is the derivatives instrument for Interest Rate Risk management for people.

It has a number of knock-on effects as well. You will get a significant degree of operational efficiencies and reduced operational risk because now you are settling with a single point at a single time. So you don't necessarily -- based on the risks you have outstanding with the clearinghouse -- you don't necessarily have liquidity calls based on the counterparty risk that you have with a diverse pool of counterparties.

You have reduced operational costs in terms of the documentation and credit analysis required to support because you are dealing with a single point again. And probably one of the most important things that comes out of Central Counterparty Clearing is price transparency. This is not necessarily including an exchange or more open execution type platform, this is just Central Counterparty Clearing by itself because what you get obviously is mark-to-market valuation coming out of the clearinghouse on a fairly regular basis about what the transactions are worth so you have some way of assessing the fairness of the pricing that you are getting.

But suddenly and perhaps more important then that is the pricing that you are getting when you are utilizing the Central Counterparty is no longer clouded by the credit relationship with the counterparty that you are entering into that transaction with. The price of the transaction becomes purely the price of that instrument and it is common across all of the institutions that we are talking to this about in the room today. Because the counterparty who is pricing this is now considering only the counterparty risk to the clearinghouse not to a desperate group of individuals.

That's very important in terms of generating transparency particularly in a market where credit and liquidity concerns are at their highest. So Central Counterparty Clearing has a very important role to play in Interest Rate Risk management because it helps isolate the Interest Rate Risk that you are trying to address and helps you address that effectively for the system in terms of helping to reduce the buildup of risks in the system that do not have sufficient capital to back them. And when failures do occur in the system, allowing the system to cope with those failures without the need for intervention from federal authorities. That is how Central Counterparty Clearing can help and I very much look forward to questions that we are about to get.
>>MALE SPEAKER
Thank you, Garry. I hope we do have questions on your session. I liked Jeff's point on the two-minute rule so examiners, we have a two minute rule for examiners to ask questions on interest rate swaps. We might take a minute longer when we get to that but the idea of a clearing house that has some transparency to it particularly the difficulty we've experienced over the last couple of years separating the price of credit risk and liquidity risk, is very useful going forward. We have just over 1/2 hour for questions with answers from the panelists here. Why don't we go ahead and open the floor for questions. I am not so sure if I can point out where the microphones are coming from, but they are so why don't we go ahead with our panel of experts.

>>MALE SPEAKER
Mark Goldman. Rangemark. Two questions. I'm wondering if the panel could comment on the intersection of credit risk and Interest Rate Risk. If you are hedging an asset and that asset defaults, you are over hedged. So there is an issue of credit continued market risk. If you have a pool of floating-rate assets funded by short-term liabilities, you may be satisfied with the asset-liability match, but I think it is reasonable to expect in an upward interest rate shock you might have heightened credit risk in that pool. So I'm wondering if the panel could discuss the intersection of credit and Interest Rate Risk. And then in the last presentation, the issue of transparency. If I engage in a transaction with a counterparty, I know the price of my transaction, but I don't know anybody else's transaction prices. And brokered dealers find that a big advantage for them because they know the prices -- everybody else's prices. What will happen to the price information of transactions done with the clearinghouse? Will that be generally available?

>>MALE SPEAKER
Two excellent questions. I appreciate that. Everything in finance these days seems to be on cash flow and if you are modeling for Interest Rate Risk purposes and you actually get none because of a credit risk, I think that question is coming up particularly in a rising interest rate environment potentially. Would one of the bankers like to touch on your experiences there?

>>MALE SPEAKER

Sure. Thank you. I think it's important to ensure that your Interest Rate Risk modeling also incorporates some of your credit experiences and expectations as well. So I think you are absolutely correct there -- lack of liquidity in itself causes Interest Rate Risk. So we build that into our portfolio modeling as far as possible.

>>MALE SPEAKER
Kevin, while others are thinking of that, do you also think of the concept where borrowers, credit risk customers would be drawing down on lines. Are you able to model that out ahead of time or is that part of your consideration?

>>MALE SPEAKER
Again that is also part of our liquidity profile that we build in to the rule, we take a holistic approach to Interest Rate Risk management, which incorporates the liquidity requirements and also incorporates any expected credit losses as well.

>>MALE SPEAKER
Jeff, you were able to in your presentation talk about knowing your customers. Are you able to do that on an anecdotal basis or with respect to cash flow type? Any comments there?

>>MALE SPEAKER
Well really at the smaller banks, most of them -- what we model the credit risk is really the impact on the earnings statement and how much margin can we give up if we experience those credit losses. Again in the smaller institutions it will really flow through the provision side. We don't do a whole lot of in-depth modeling for the credit losses. Fortunately the portfolio has been fairly clean, so we really have not had to step to do that. Again, getting back to knowing your customer not only the deposit side but on the liability side and say what impact it is going to have as those losses do occur.

>>MALE SPEAKER
What about on the transparency?

>>MALE SPEAKER
Sure. Let me address the second question. I can't speak for all clearinghouses but let me talk about what we do. And that is that the price information about where transactions occur, we make that available to people on at least a daily basis if not more frequently but the other thing we do, is that when we receive that price information whether it be from an exchange traded market or whether it be from the OTC market itself, we publish that out to our participants at a rate of about four times per second which is obviously a little bit of overkill, to allow them to see what the clearinghouse's view of fear value for that transaction might be for the purpose of margining. But again, not all clearinghouses are equal on this issue, but all of them do introduce some level of price transparency whether that is directly to their user or that is through a trade depository type institution.

>>MALE SPEAKER
Ed, as you were speaking, I will pick on the consultant who has, like bank examiners, had a wide field of experience with many boards of directors. One of the conversations that I hope comes about with boards of directors among examiners, but particularly among themselves as they meet on ALCO's and the like is what kind of discussions are you having -- some of this is very complex. What kind of good questions are you finding from board members and how about their educational opportunities there?

>>MALE SPEAKER
I think there are a lot of -- to the last point, a lot of educational opportunities for boards. As an example there is an Assembly of Bank Directors Conference in California I will be speaking at next week for board members and one of the focal points will be Interest Rate Risk and again the efficacy of the asset liability management processes in those banks. I think the key is for each institution to develop a plan for its senior officers, for its board, for ALCO committee members and in looking at ALCO not just financial managers but others in the institution that are involved in implementing strategies who should be part of ALCO, educating them on what the issues in ALCO and what the risk management techniques that you heard from these gentlemen today. Teaching them what this means and developing an education plan for the board and for your non-financial managers so they can have an appreciation for what the issues and the challenges are.

>>MALE SPEAKER
We will have a microphone coming to you just now. There is another question over here next.

>>MALE SPEAKER
Hi. My name is Tom Wayne. I'm with the Bank of Oak Ridge in Oak Ridge, North Carolina right outside of Greensboro. I want to get the panel's thought on a product that has been offered for the last couple of years now. Commonly referred to as rewards checking. Really the common kind of characteristics of this product is that it offers generally a high rate but ties the consumer to activities such as bill payment, debit card transactions, electronic statements, and things of that nature. And really just wanted to get your observations on the challenges and opportunities that this product offers from a liquidity and an asset quality perspective. I think -- my concern is the cash flows of this product. It is interesting, the company that markets the product offers it as a way to differentiate yourself amongst other competitors but no less than seven institutions in our market offer the same product. So it seems contradictory. So I want to get your observations on that.

>>MALE SPEAKER
It's a great question. It goes along the theme that we might talk about if you used a word it would be the stickiness of the non-maturity deposits.

>>MALE SPEAKER
If I could, we offer that same product and it's been very successful for us. I think we market it in a little bit different way. When don't -- when we wrote that product in the offices we really try to get everybody into it because of the e-statements. And one of the features -- if you're not familiar with the product, typically the consumer has to do three or four things with regard to the number point of sales transactions, typically Internet banking, bill pay customer, and most likely get their statement electronically. The product would pay a high rate of interest. At our bank they earn 4 percent up to $25,000 and then money market rates beyond that is typically how it is structured. It has worked very well in our market.

Again we run the average cost and it's running about something around 190 and it has been like that for 1 1/2 years. From an Interest Rate Risk standpoint we model it as a constant. We know what it's going to be. We are not changing the rates, so we don't see a lot of Interest Rate Risk in the product. We don't have seven banks in the market offering the same product so I guess it probably gets a little loss in your particular area. But, we have been pleased with it. Again we don't see it from a Interest Rate Risk standpoint as anything that is going to cause us problems.

>>MALE SPEAKER
Thank you. Another thing from Great Western's perspective, which is just really to echo those comments, is we offer high performance checking account. We don't offer the same high rates as Jeff was mentioning, but similarly I think as it goes into the pool of our account portfolio, it really has not provided us too much Interest Rate Risk sensitivity. And really, we are finding them as sticky as everything else.

>>MALE SPEAKER
It's interesting in getting back to knowing your customer, when you offer that product you can pull a list of those customers and you can see who immediately put whatever the max is, and they get their transactions done on the very first day of the month and they qualify for the account. So you know they are just there for the rate. That may be 10 or 15 percent of our clients in that product and the remainder are just checking account customers that can benefit from it potentially but not every month.

>>MALE SPEAKER
I would be curious for the bankers in here, you might raise your hand if you are a banker, if you would, raise your hand please if you are a banker, and them raise them high. Now, how many of you offer reward checking or something like that? It's probably what, just 5 percent, it's a small number. And for those of you that don't offer it or are not familiar with reward checking, it is a high yield checking account. Most of you probably have it. It would be hard for you not to know what it is, or have heard about it. But it's a high rate checking account that ties the customer doing a certain number of point-of-sale transactions per month. It requires generally that you get your electronic statement each month and if you don't do this iteration of things that are required under the agreement, then the rate goes from 3 or 4 or 5 or 6 percent in some cases to 0.1 percent or 0.05 percent or a nominal rate. The acceptance of it of has varied widely. Some banks don't like the concept of it and some banks have embraced it and to like it a lot and have offered it. Others have it, but don't promote it. Whether that is a sin of omission or a sin of commission I'm not sure. We see varying levels of acceptance of that product structure.

>>MALE SPEAKER
Go ahead while we get the microphones around.

>>MALE SPEAKER
[off mic comment]

>>MALE SPEAKER
Thanks. Good question and we will let you know. We have just started. We actually started a CD campaign in our local markets on the 25th of January offering up to 58 month CD with various options in between. 6 months-18 months-24 months. The initial experience is that we are getting about 15 percent of the overall program coming in longer term. At the moment, it is still very, very early days but it does look promising.

>>MALE SPEAKER
Just to kind of echo those thoughts, I think the window for that opportunity is really going to occur potentially six months to 1 year out. Most banks have been inundated with funds of investors fleeing the stock market. A lot of individuals -- they set that price so when the index hits a certain level they are out because they recovered 30 or 40 percent. We are seeing the individuals coming back to the banks and just kind of parking the money right now. The key is to have a conversation with them because I

don't think a lot of that money will flow back to the stock market. That's our assumption.

>>MALE SPEAKER
It's a great thing to be thinking about. Vice Chairman Kohn mentioned the amount of money that is parked in banks for confidence reasons. We are concerned about that from the disintermediation that might occur or might not from a liquidity perspective, it all seems to be very short. A quick follow-up question and we will go back to the audience. Kevin, are you watching -- unless you have options in that longer rate CD for the customer, are you anticipating that down the road they might early withdraw that money? And if so, what techniques would you had to mitigate that?

>>MALE SPEAKER
Yes, we are anticipating that. Again we have prepayment penalties and the like which we include as part of those agreements. We really have not built that into our modeling as of yet. We are just seeing how it goes over the course of the program and how much -- how relative that portion of the balance sheet becomes. I think it is fair to say it will be fairly small.

>>MALE SPEAKER
There was an audience question over here. Thank you.

>>MALE SPEAKER
Just getting back -- my name is John Sypoe and I'm an asset liability manager at the Providence Bank in Jersey City, New Jersey. We have a similar product. We call it the smart checking product and we started it about two years ago. The rate at the time was I believe 5.01 percent. We brought in a ton of money and eventually we had to lower the rate because the rates got so low even though effectively we were not paying 5.01 percent, it was still a very high rate. The idea is that we now are paying I think 3.25 percent. The rate was the eye catcher. I believe that most of the people in there are in there for the rate and if rates go up, eventually we will have to move that rate. I consider that very rate sensitive because that's what we sold product on. That's what we think will happen, if rates go up, we will have to move that rate eventually, but you are saying you don't think that would happen with your product. You didn't advertise it on rate.

>>MALE SPEAKER
Honestly we don't think it will be that rate sensitive because it is primarily the core account. You may see folks not holding as much in that account, but if you look at the average balances across what you have in that product, again ours is the average balance you would see in a checking account, $3,000-$4,000. It is their primary operating account so and that $3,000-$4,000 will not move and that top 15 percent that we identified that put it in and get the rate, they may move those funds, but again I think the draw of the product is kind of the stickiness of it. That once you get them in there using that card and get the statements and doing their bill pay, they should not move as quickly hopefully.

>>MALE SPEAKER
At least the experience we have, most of the people are maintaining a high balance and they are getting the rate, they are complying with all the terms. We will see what happens when rates rise.

>>MALE SPEAKER
It's really important to -- and one thing we measure every month is the number of accounts that qualify and the dollars in the accounts that qualify and to see what that trend level is in that product. Quite honestly, our levels have not changed in a year and a half. Now again, rates are not 5 or 6 percent so it

will be interesting to see how the changes over the rate cycle.

>>MALE SPEAKER
Thank you.

>>MALE SPEAKER
My name is Dave Hanrahan, I'm president of the Capital Bank of New Jersey. Mr. Spoth, the question for the FDIC regarding Mr. O'Connor's presentation, may I correctly infer from his presence on the panel and specifically under the small bank section of the agenda that derivatives are deemed to be an acceptable tool for small community banks to use for Interest Rate Risk management. And if the answer to that is yes, my follow-up question is as a very young community bank, which is soon going to be required to submit an updated business plan to the FDIC, under FIL 52-2009, if we think that we may wish to use derivatives in the next four years, is that something we must specify in that updated business plan?

>>MALE SPEAKER
Sure. Happy to answer those questions without them being specific to your institution, if that's okay. As a general matter, we do see a lot of community banks and we are happy about it if they can effectively mitigate their Interest Rate Risk through derivatives. Most commonly interest rate swaps. The idea of clearing houses and things like that is appealing to us with respect to the transparency that it provides and the mitigation of some of the -- perhaps some of the counter party credit risk in that respect. All of that said, it is clearly incumbent upon the boards of directors or the ALCO committee to fully understand how the derivative instrument works and exactly how it is being applied with respect to the model.

The financial institution letter that just went out, all of the interagency approach that talks about Interest Rate Risk management should be a very good primer so to speak for boards of directors to take a look at. We are hoping they are looking at them now and interest rates swap is addressed in there. We also have on our website a publication that is put out at the FDIC called the Supervisory Insights Journal, which is a longer paper. It's focused toward examiners and we share with bankers about what our expectations are and what we are seeing actually in development so I would point you to that as well.

With respect to the change in business plan question that you asked and that's one for the audience that has to do with de novo institutions or young institutions inside of seven years, it might actually be a change in a business plan, but it might not be a very long conversation about that if it is mitigating risk that was pursuant to the originally proposed business plan. For an example, if I don't go too long on this, if the institution was planning to make say a 1-4 family residential mortgages funded by core deposits it would be a natural question to discuss with the regulators how Interest Rate Risk might be hedged there and that could be a swap transaction. I hope that's a helpful answer.

>>MALE SPEAKER
[off mic comment]

>>MALE SPEAKER
I think generally the positives would be just the quality of the core systems that banks are using, nothing necessarily specific but the core systems you are getting from the large data processors today for community banks are excellent. They are far better than they were ten years ago. The timeliness of data, the quality of data has improved incredibly over this last decade or couple of decades. That is just

a general comment. The specifics would be what concerns do I have, derivatives.

I think the vast majority, we work with 700 community banks in 35 states, the vast majority of those banks I believe, and this is not a criticism of that at all, but they don't have the perspective, they don't have today the competency to really effectively use off-balance-sheet transactions to manage Interest Rate Risk. I would be afraid if in response to the gentleman's question if there were assumed to be an implicit endorsement of the use of derivatives, I think we are a broker-dealer, maybe I'm condemning us as well, I think the broker-dealers are going to be licking their chops over this, if that were to be the case. We tell banks whether buying private-label mortgages or whether buying synthetic or trust preferred CDOs or whatever it is, we tell them to build the portfolio, don't be sold a portfolio.

That's the same as to whether or not it's on balance sheet or off balance sheet. One of the gentleman here said earlier we talked about competency and perspective and knowledge of these products, it will take a lot of work for community banks to get up to speed to do this and understand it and again, not be sold, not be sold that instrument, but rather buy the instrument that is appropriate for them. If we have this flurry of activity and I am not trying to cry wolf, but if we see a flurry of activity with banks, community banks using off-balance-sheet instruments, I think we are going to see some Jefferson County Alabamas, some Harvard universities, we're going to see some tough situations and again I would urge the bankers to move very cautiously and deliberately in this area.

>>MALE SPEAKER
I think from a systems perspective, undoubtedly the biggest advance for us is being able to get into the data and understand the customer behavior and include that as part of our modeling techniques and that really underpins and provides a great deal of insight around the overall Interest Rate Risk portfolio in your portfolio. And the ability then to vet this and to understand and prove that is very important.

>>MALE SPEAKER
Just some of the products that give us concern are mostly on the CD side, callable CDs or index powered CDs, our experience has been that these probably are not good products for community bank customers. They don't understand them, they are hard to sell. I would imagine it's would be a very, very difficult conversation to call your best client and tell them you are calling their CD. So we like to keep the optionality out of the traditional banking products. We think it would just confuse the customer.

>>MALE SPEAKER
I would echo Ed's comments. I think the innovation of products is both a blessing and a curse because products that we saw five and six years ago, some of our largest customers who have full modeling capability and the ability to stress those products and see what they will do, those have filtered down. That is a great benefit that those customers have access to that kind of product now, but sometimes they don't have the full understanding or the full process to keep track of them. It is the same issue but on both sides.

>>MALE SPEAKER
I may take the opportunity to follow-on with the points of the others. One of the key things if we are going to have increased derivative activity or embedded options in various things on the liability side or on the asset side and maybe you can touch on Home Loan Bank facilities is the input to the modeling that is being presented to the ALCO and the like. If the optionality or other features of the derivatives including the back testing is not provided, there is probability that you will be wrong and in a rate

environment that was not expected.

From a supervisory perspective, I think Ed, it was your point, if it was not yours one of the others will get credit for it, is the idea of trends. Bank examiners, supervisors, we are trying to use all of the available information including our on-site examination and especially off-site information to see what changes in risk profile an institution is undertaking and that is embedded somewhere in the de novo concept that we are apply now. Looking to see what an institution is doing. Let me just tell you on the circumstances with Jefferson County since it was an example, when that happens to a bank that it gets into something it does not understand and blows up their balance sheet, that is heartbreaking. There are a few of them. Long-running institutions that have existed and serve their countries for -- their communities for a long time and took bets they should not have.

>>MALE SPEAKER
I think that even though I have some perspective on the derivatives market prior to my clearinghouse experience, I am very impressed with what I've heard today from the panelists in the group about the innovation that is occurring to match risks and keep risks within the customer base of the particular institution. I think that you will continue to see that develop and at the same time you will move away from off-balance sheet or derivative risks that are unduly complex. So you are going to see a derivatives market that is far simpler and far more targeted at specific risks rather than the complicated multi-component type derivative transactions that we saw through the early part of this decade, which contributed to a large degree to the financial turmoil that we saw. I'm extremely encouraged by the innovation that I am seeing on this panel and the group about pushing these risks back to the core competency of the organization and using the off-balance sheet -- that's where the technology is advancing and using the off-balance sheet in very simple, very targeted way.

>>MALE SPEAKER
If I might just make one comment about managing risk on balance sheet or off balance sheet. There is nothing wrong with using -- Federal Home Loans -- in fact it's really pretty good Wes, to use federal Home Loan Bank advances, if they are used appropriately. There's nothing wrong with using possibly some level of non-core funding, wholesale funding, if it's used appropriately.

The key is identifying what it does to you and your balance sheet and what it does to you and your risk profile. I will use one other example. There was nothing wrong with trust preferred securities as a capital formation device for banks. There was nothing wrong with that. It was a great tool, but the problem came when every bank was encouraged to do it and they over did it and they did it inappropriately and then they were encouraged to take that capital and lever it with wholesale funds to buy what, trust preferred CDOs. Lo and behold -- that was the problem. It was the misuse of these tools.

I hope there will not be a condemnation of what the markets have provided to us in the last ten and 15 and 20 years as it comes to these funding products whether it be the creative advances you get from your federal Home Loan Bank or what you get from some of the wholesale funding sources. But, I hope they are used appropriately in the context of your risk management processes and the development and articulation and implementation of financial strategies that are appropriate for your bank. I think that is absolutely key.

One thing I would encourage, I will speak to the regulators here, is improve the call report, the information that is gleaned in the call report about non-core funding. If we break out brokered deposits, but that is not pure, you have your reciprocal CDARS in there, that needs to be addressed. You have Internet gathered deposits that I believe are non-core. They are not broken out. You can't pick out these things in the call report. This needs to be improved. I think it will allow analysts and industry observers and regulators to do a better job of really assessing risk profiles of those institutions and I hope that will be something that may be considered in the near term because I think that would be an important improvement in the reporting of institutions and the assessment of risk profiles.

>>MALE SPEAKER
Point taken.

>>MALE SPEAKER
[off mic comment]

>>MALE SPEAKER
I think it's incumbent on the industry to put structures in place to make sure that it is an attractive place for people to do business and hedge risks and that means that the incumbents and the industry need to put protections in place that work for all participants. Does that address your specific question?

>>MALE SPEAKER
[off mic comment]

>>MALE SPEAKER
Where is the balance in the system?

>>MALE SPEAKER
[off mic comment]

>>MALE SPEAKER
Yeah, it's a big -- the market is large and complex. I think when you look at the level of wholesale interest rates and when you look at the level particularly of interest rate swap spreads at the moment the problem seems to be the other way. It's not a question of finding people whose perception is that rates will go higher, it seems to be an over abundance of people who believe that rates will stay low. You see that in very tight interest rate swap spreads and you see that in very tight wholesale rates. The users -- the interesting things about the interest rate derivatives market that is it is very large and it does touch all of us on many levels while it is wholesale. So not only is it the banking community is using it for hedging, but also the investment community, it's also the municipal community, it's also the federal community. It is a very broad user base and as perverse as it may seems the current problem seems to be the over abundance of people that believe that rates will remain low rather than move high.

>>MALE SPEAKER
Is your concern that they will not have the ability to pay out when those --.

>>MALE SPEAKER
[off mic comment]

>>MALE SPEAKER
Okay, okay.

>>MALE SPEAKER
We just have no questions from the floor, which means it's about break time. I might run down the list and let me let you say if you like one thing that you would tell an outside member of a board of directors, not necessarily your own board, if you are a banker, but some board that you've learned from your experience. Down the line quickly. In any order.

>>MALE SPEAKER
Man, that is kind of a loaded question. I guess what I have learned from board members is most outside directors don't have the background or the experience to really understand what we are talking about here today to a high degree. Not just Interest Rate Risk, but all risk.

If you look at the handout that I referred to earlier, one of the things in there is a business of lists that I've used with the examiner programs here, is the business of being a bank Director. There are ten points in three. One of those points is for a Director to ask what creates risk in our institution, number one. Number two, who in our bank takes a step back from the day-to-day things that we do every day and looks at the big picture and asks are we measuring and managing the risks appropriately that are unique to my bank today. Are those risks increasing or decreasing? If they are increasing, what are we doing about it. How do our strategies reflects that?

Maybe one last point is are we being compensated for the risks that we are taking? Are we taking the right risks today? Don't stop with asking, don't stop with asking, are we in compliance with our policies, but also ask do we like how we are positioned today in this market. Do we like how we are positioned today in this market of 25 basis point hedge fund target. Do we like how we are positioned today with yes a relatively steep yield curve today but the $64,000 question is, can long-term rates lead or precede the rise in short term rates again? Are we done with that or is there more to it.

Those are the questions we should be asking ourselves. And board members, I would encourage you to proactively go to your board and say let's talk about the significant events that we have heard about and talked about in the economy and subprime and the implosion of the capital markets a year and a half ago. Talk about these things and be able -- just like when I was studying catechism, what does this mean? What does it mean to me and my bank? What does it mean to me and my risk profile? What does this mean to our institution today in terms of our sustainable performance and risk management of our bank?

>>MALE SPEAKER
Excellent. Thank you.

>>MALE SPEAKER
Thanks. I think the most important piece for us through our growth over the last 18 months and the diversification and introduction of various additional limits and stress testing that we have done on our portfolio is really to educate the board. We have had various different sessions going through the balance sheet profile and also in some detail around the risk measures that we are using to analyze and control some of the Interest Rate Risk exposures. It has been a very interactive approach both with all levels of management, but also some very specific sessions with the board. It has been an enlightening exercise for both the board and management.

>>MALE SPEAKER
Thank you.

>>MALE SPEAKER
I would just get back to know your customer. I think if you ask most boards who their top borrowers are they could rattle them off or all board members could. If you ask them who the top depositors are, you will get a lot of blank stares. My recommendation would be to bring that liability side into the boardroom and get them as comfortable with your large depositors as they are with the large borrowers.

>>MALE SPEAKER
I would echo that. What we have tried to encourage our customers is typically when you see a board presentation, lots of times it will be focused on the solution that you chose and whether it will be the checking account idea that we talked about or longer-term CDs or Home Loan Bank advances, or off balance sheet. It tends to focus on what you chose and I think lots of times if you include what you did not choose and why you didn't choose it, it leads to a much more enlightened conversation about what you did choose. We really encourage that, to have all the options on the table when you're having that discussion.

>>MALE SPEAKER
I think one of the themes that came out of the panel was understand the risks that you are undertaking and I think to be able to understand them you need to be able to observe them so I think ask hard questions of your own internal systems to be able to observe those risks and ask hard questions of market infrastructure to make sure you can observe them as well.

>>MALE SPEAKER
Very good. I made an uncovered bet that you guys would say that and it fits the purpose of our conversation and the purposes of this forum. I can see there was one more perhaps short question and then we will wrap up.

>>MALE SPEAKER
[off mic comment] up 5.7 percent in the fourth quarter, twice the expectation of economists. There's been a lot of talk of hedging and FHLB advances and [indiscernible] the minutia of liabilities, what about loan growth? When are we going to see loan growth? Most banks are price takers on rates, but they usually manage to stick it on the volume side. So where do you see that in the picture for community banks?

>>MALE SPEAKER
Our panel ended up being mostly bankers. You can comment on loan growth. I can tell you we have been asking banks, we support loan growth or safe and sound loan growth and from the regulatory perspective you are asking a bit of an economist perspective perhaps on that question. Some banks are well positioned to take on new loans during -- before or during an economic expansion and we are hoping that occurs. If that's an answer.

>>MALE SPEAKER
The banks with which we work have told us that loan growth is spotty and inconsistent and it is tough. Credit standards are tight, but they are willing to make loans and work with customers if the loan demand is there. Most of them are just not seeing it. As a side comment to that, I think that many of our borrowers have heeded this language about leverage and over leverage and they are remaining liquid. That's the reason we haven’t seen deposit growth. So a lot of them don't want to borrow

money, they don't want to take on debt today. And I think one of the problems with the last 2 1/2 years has been the excessive leverage in the system. If you look at the level of total debt, government debt, consumer debt, and business debt in this country, it was -- is roughly 375 percent of GDP. The highest level it's ever been even since the Depression, the depression days. So I think we are in for a period of -- a period, a sustained period possibility of slow loan growth and deleveraging by a lot of our customers.

>>MALE SPEAKER
All right, I thank you for your participation. I especially thank my panelists for the conversation today. Thank you so much for your participation.

>>MALE SPEAKER
I invite you to take a short break. We have coffee and will reconvene at 10:30. There are restrooms over here to your left.
>MARC STECKEL
We'll be getting started just shortly.
>>MARC STECKEL
If you could please take your seats, we're ready to get started.
>>MARC STECKEL
All right. If we could please take our seats, I'd like to get started with our next panel.
>>MARC STECKEL
All right then. Our next group will be exploring some issues faced by larger banks and others with regular and direct access to market funding. Joe Jiampietro will be moderating this panel. Joe works here at the FDIC as Senior Advisor to the Chairman on markets issues. Previously, he worked for several years as an investment banker at both JP Morgan and UBS. Joe has practiced corporate law and was counsel for the Senate Committee on Banking Housing and Urban Affairs during the 104th Congress. Joe, we appreciate you being here today.

>>JOSEPH JIAMPIETRO
Thank you, Marc. We're going to address two broad topics on this next panel. First we have a distinguished economist who's going to discuss macro perspectives on Interest Rate Risk and trends in short-term funding. As Vice-Chairman Kohn highlighted in his discussion, banks will continue to operate in an uncertain rate environment in which historical behavior may not be predictive of future behavior. This first discussion should give us a good context for our second topic on this panel.

The second topic is a perspective on how larger banks are addressing Interest Rate Risk management in this uncertain rate environment. We are honored to have the chief investment officer of one of our nation's largest universal banks, who will set forth a broad analytical framework for managing Interest Rate Risk at a larger bank. Next we'll hear from the CFO of one of our nation’s largest and most respected retail banks who will discuss how his institution is managing Interest Rate Risk, the Interest Rate Risk challenges presented in the current and forecasted environment.

One topic we would like this panel to address is whether and how regulators should provide incentives to extend liability maturities. As again, as Vice-Chairman Kohn highlighted, a number of institutions have unusually large amounts of debt to roll over in the next few years as a consequence of the shortening of maturities on borrowing that naturally occurred under the pressure of the financial market turmoil. While as he stated sound institutions will find credit readily available, the cost of such credit could be affected by increasing competition for funds.

Now it's my pleasure to introduce our first speaker, Dr. Larry Meyer. Dr. Meyer doesn't need too much of an introduction. He's the Vice-Chairman and Director of Macroeconomic Advisers, a firm he founded over 25 years ago. He is a former member of the Board of Governors of the Federal Reserve Board where he was a chairman of the board's committee on supervisory and regulatory affairs. Dr. Meyer serves on the Board of the National Bureau of Economic Research and is a Fellow of the National Association of Business Economists. He is widely recognized as a leading economic forecaster, but I'm sure he'll admit that economic forecasting in today's environment is particularly challenging. Dr. Meyer.

>>DR. MEYER
Thank you very much, Joe. And thank you to the FDIC for inviting me and maybe I'll follow up on those remarks about the challenge of forecasting. One of my favorite quotes related to that is forecasting is very difficult, especially the future. And that's attributed to Yogi Berra. I know it sounds like that that's probably not the right attribution. Another story I like is the story of an economist who was drafted during World War II. They wanted to make use of his analytical and forecasting ability, so they put him in charge of weather forecasting. The superior officer came to him and said I need in a few days a forecast of the weather in Germany for the next two weeks so we can decide when we can run our bombing missions. And he said I can't forecast the weather, to which the superior officer says, well, I'm sorry, we need it. And fortunately that's the way it is for so many of our clients. It's difficult to forecast, but they need to make the forecast.

And so now I'm going to talk about the issues of when, why, and how fast interest rates are likely to rise. And they can't really go much lower, so that's obviously what we should focus on. I might say right at the outset what is the greatest source of the rise in interest rates? And the answer is very simple. It was very obvious today. It's Don Kohn. And his colleagues at the Fed. So we could ask who is the greatest risk? And they are the greatest risk. And I'll talk about my views of how that's going to proceed. So I'll just talk -- and I think it's a good idea -- it's always a good idea for regulators to be out in front.

Interest Rate Risk is certainly one of the challenges that are going to be there for banks. I must say, very frankly, that I think you're going to have quite a respite from worrying about the reality of rising interest rates, and that's my expectation. I'll talk about it a little bit more. So you will have some time to worry about other things, like building capital, putting in place better risk management systems for credit risk, thinking more about liquidity standards and managing liquidity and of course putting in place the systems that ultimately will be needed to manage Interest Rate Risk. So I think that that's a key.

Now, you know, this sort of reflects my parochial background as a member of the board and head of the supervisory committee. So I put why should the Fed worry about Interest Rate Risks? My apologies to Sheila and to the OCC. That should have been why should regulators worry about Interest Rate Risk. Well, it's obvious that that's going to be important. So what are the sources of Interest Rate Risk? Well, they're predominantly coming from the outlook. Is the economy going to grow slowly? Is the unemployment rate going to stay high? Will inflation stay low? That really drives monetary policy because that will determine how long the Fed stays with the near zero rates, when they begin to increase, how fast and how aggressively they do.

Now, we'll talk about other sources of Interest Rate Risk, and there certainly are some. You know, we sometimes -- really, I mean, I think there are two sources we have to distinguish relative to the portfolio of banks. One, that there seems to be obviously a lot of emphasis and we think about Interest Rate Risk, we often think about this, and this is the uncertainty and risks associated with short-term funding costs. And that's true. The nature and the amount of that risk and the intensity of that risk depends upon, as has been said, the individual structure of bank portfolios and that is the degree to which banks fund their assets by sticky deposits rather than funding in short-term markets. And we've just come through an experience that shows that the more the banks had sticky deposits, the less they were affected by the financial crisis.

But the other Interest Rate Risk, which is also very important, and we saw intensely in the financial crisis, comes from not just the short-term funding risk, but the impact of interest rates, particularly when there's enormous credit crisis on the value of the bank's asset portfolio. By the way, what's interesting is one of the banks, shall we say, that face Interest Rate Risk is the Federal Reserve, because they're holding more long-term, illiquid assets in their portfolio. And if they have NBS assets, they are going to suffer significant capital losses, which is one of the things that will weigh on their decision.

Okay, so I'm going to start with my forecast, as I think people will be interested in how I see the economy unfolding and how long rates are going to stay low and why. Now, I think it's true that you might say that your particular forecast, like ours, isn't really very important in terms of managing Interest Rate Risk, not because you don't speculate on interest rates, as many speakers said. I hope you all appreciate -- you do. And that -- but I presume that you manage your portfolio in light of your expectations. So the real problem is what happens if the economy unfolds and the interest rate environment unfolds differently from what you expected? And particularly what happens if there are tail risks and how are you prepared to respond to it?

So let me get on with the outlook. And I think our forecast here is in some ways quite a bit different from the consensus. We believe the economy is actually going to grow stronger than the consensus, maybe a percentage point higher than what seems to be embedded in the markets. We believe partly -- also, however, that the unemployment rate is going to increase further. It's going to remain very elevated for a long time. And indeed it's going to take us until something like 2014 to get back to full employment. The worst macroeconomic performance we've ever seen in the post-war period. And partly as a result of that slack, interest rates will go lower and remain very low, too low from the Fed's perspective, for a very long time.

I like to say sometime we won't get back to 2 percent core probably until I'm retired. So that's the environment. As a result of those two things, interest rates, the Fed interest rates, will stay as the vice-chairman said, extraordinarily low for an extended period. And extraordinarily low means where they are today, near zero, and extended period is a vague term, but generally taken to mean more than six months. In that case, it means to the middle of 2011. If that forecast is wrong and the economy is weaker, the unemployment rate is higher and inflation is lower, longer than that. Okay.

So how do we come up with that forecast of when the Fed is going to begin to tighten? And I just show here, it's called -- it's a policy rule, happens to be called the Taylor Rule, and it just describes how the Fed, the FOMC has responded in the past to movements in the unemployment rate and movements in inflation in terms of setting the funds rate. It has a couple implications today. So when the Fed is at say a zero rate, that doesn't tell us at all where they'd like to be. I mean, if they were at 2 percent, that's where they want to be, because they could be at 3, they could be at 1. But when they're at zero, we know they don't want it to be higher, but we don't know whether they want it to be lower. Of course they can't go lower. But what our model suggests if they could, they'd like to be at about a minus 3 percent funds rate.

But what does that mean? That means that they're not going to be very sensitive to incoming data which shows a lower unemployment rate and higher inflation because all that will do will push the prescribed rate less negative and it's going to take a long time in our expectations to get conditions in place that push the Fed to raise rates. I should point out that the Fed doesn't respond to growth rates except insofar as they affect slack or the unemployment rate. And the main impact of growth rates is to tell us that the economy if it's growing at a fast enough rate, that the unemployment rate is likely to decline.

Now, I just point out that today we got the data for the fourth quarter, and the economy grew at a 5.7 percent rate. Two-tenths higher than we expected. A percentage point higher than market expectations. And what should we draw from that? That all of a sudden the Fed is closer to tightening? Absolutely not. It was all driven by temporary factors, inventory investment in particular, and it shouldn't affect at all our expectations about future growth. If it does, it should subtract from our expectations of growth early in the year because we've just moved forward some of the inventory investment that we otherwise would have expected to come later. Okay.

So -- but what this suggests is the key is getting back to zero and we're a long way from that. This suggests that it could come even later than we're expecting. Alright. Now, but this is about risk. This is about scenarios. This is about why we could be wrong. Okay? And forecasters are usually wrong in one way or another. And of course the good forecasters know how to learn from their errors and we try to do that. But I think here the risk to our forecast in the following sense -- of course the outlook is uncertain, if the outlook is different than we project -- the interest rate environment will be different from what we expect.

But even if we're right about the macro environment, there are developments that could push forward the timing of the tightening of monetary policy and put us in an environment of sooner, faster and more aggressive increase in rates. And the first is asset bubbles. Okay? It's remarkable, you'd say. Unbelievable, you'd say, that we could even think about asset bubbles after what we've been through. But the reality is corporate credit spreads have absolutely collapsed. They're lower than we would expect at this stage of the cycle by about 100 basis points. Equities have increased about 60 percent. Okay?

We expected a rise in equities in this environment, but 60 percent? So what happens if equities continue to increase on the trajectory and they go up another 25 percent or 50 percent in the first half of the year? That's a bubble. Of course, the impact is that that means that long-term rates are lower, asset prices are higher, the economy is stronger and the Fed will tighten earlier. And even earlier than that, more aggressively, if it changes the way it usually operates based on past experience and is more direct and more preemptive in the response to emerging bubbles. A lot of debate on the committee about that.

I think the biggest risk -- and this is perhaps surprisingly so -- is that long-term inflation expectations rise above some threshold that questions the credibility of the Fed for maintaining price stability and leads to an un-anchoring of inflation expectation. Inflation expectations is the most important variable, in a sense, for central banks because stable inflation expectations make it much less likely that inflation is going to move up or down relative to the objective and also tend to stabilize the real part of the economy. No central bank can have its credibility challenged. And therefore if inflation expectations were to move up sharply, the FOMC would have absolutely no choice, independent of what the macro environment looked like at that point, independent of how weak the economy was and how low inflation was, to tighten quickly and aggressively and reestablish its credibility. That's a nightmare scenario.

Tightening quickly and aggressively into an already weak economy. That is the nightmare scenario. Now, you'd say that doesn't seem possible with that forecast of low inflation, but markets have their own life and views. Markets are already worried about inflation. They're worried about it for the wrong reason. I suspect half of you or more are more worried about inflation being too high than inflation being too low. And that's wrong. But it matters that you think that way, because that will get reflected in market expectations, and those expectations will rise further. As growth is higher than expected, the unemployment begins to decline. And the Fed hasn't begun to withdraw reserves, shrink the balance sheet or raise rates. And the last is the collapse of the dollar, less likely over the horizon I'm talking about, but that would also provoke a quick response.

Now, we talk about raising rates. We're really talking about the exit strategy of the Fed. And the first move here is going to be very market-sensitive. Now, we call it a rolling exit. It's kind of a dance that's underway. And the dance began when the Fed decided to stop easing. And how did they do that? Well, they stopped buying assets. They stopped buying treasuries. And they're going to end their MBS purchases, and this is absolutely the case, at the end of March. Well, talking about Interest Rate Risk, the issue is what will happen to mortgage spreads when they stop purchases? And there's a wide variety of views. Some people think it could be very large, as much as 100 basis points. Most people think it will be small. But the average is 20 or 30. I want the under, okay? I really want the under on that. In my view, it will be for a few days, a few basis points, not more than 25, settle in at nearly zero. And why is that? How could this possibly be a surprise to the markets? They've known about it for a very long time. Anybody who's surprised at that and has to adjust his portfolios deserves to take a beating. Okay. Okay.

Now, the next thing that's going on is we've got passive steps underway. The passive steps are that the liquidity facilities that the Fed put in place, well, their usage is down to zero. The markets don't need them anymore. The markets have healed. And the Fed cleverly put in place a structure that made it increasingly expensive to use those facilities as markets healed. And it worked. And now on February 1 they're actually terminating all those facilities, not very important because there's no usage today.

The second passive story is the portfolio of MBS runs off, things mature, okay? So the balance sheet begins to passively decline, but very slowly. Okay. It's over $2 billion today. $2 trillion, a trillion higher than in pre-crisis period and roll-off is worth about $200 billion a year. And now we're getting to what's really important, what's really market sensitive and the timing of which is going to determine when you're facing potential Interest Rate Risk. And what they've got to do is three active steps now.

Obviously, they've got to raise interest rates and that's the most important development. But it may not come first. They want to actively withdraw reserves, as the vice-chairman said, using reverse repos and term deposits. And, finally, they want to shrink their balance sheet. And only two ways they can do that. They can sell MBS or they can let runoff occur. And so the question is how will the markets feel about the Fed taking five years or more to get its portfolio back to what we might consider normal, and how will the markets respond to the Fed selling MBS back to the market. And a lot of debate about that.

We'll learn from when we see what happens when they end purchases. But the view of many participants is that selling MBS back to the market will be virtually catastrophic. One of our clients called it the nuclear event. Okay? So, again, that could well be -- well, it would be in that case a dramatic Interest Rate Risk, but that's in terms of the value of assets on the portfolio rather than funding risk itself. So which markets -- what of these events is going to occur first? Well, the committee doesn't know that. Just as Don Kohn didn't know when the Fed would begin to tighten, how fast it would be, how aggressive it would be. He may have some views, but he'd never be pinned down about a date. It would be silly to do that. Only we do things like that.

So what's the most likely? Well, for a variety of reasons, the Fed believes that withdrawing reserves makes raising rates more effective. So the first thing they're likely to do is to begin to remove reserves, but only shortly before they raise rates and only when they are confident, they know when they will raise rates, because the first step to remove reserves will be taken by the markets, understandably, as the beginning of the tightening process. It will be the very same effectively as an explicit increase in interest rates. So you don't want to do that until you're willing for the markets to make that interpretation and you are at the beginning of the tightening process.

Now, interest on reserves is the workhorse, because the notion is that no bank would lend in the market at a rate below the rate that it can earn by depositing those funds in a reserve bank and getting interest on reserves. So it sets a floor to interest rates. And every time you raise interest on reserves, you drag up the federal funds rate and other short-term rates. Now, there are a lot of subtleties there in that it hasn't worked as well as the Fed likely expected. But that's a sort of technicality that probably can be improved upon. And the last thing is selling assets. As I said, that is really uncertain. It's uncertain whether they'll ever do it, whether they'll rely on runoff, when they'll do it, how much impact it will have on the markets.

So now let's talk about other sources of Interest Rate Risk other than monetary policy. And there are many. I'd say the most important is one which is undoubtedly and understandably not in your planning horizon because it's really something that's not likely to happen in the next year or two. And whether it happens and how large the impact is, is very uncertain. But I've come to the view that the budget deficit and the financing of debt is what I call the next catastrophe. Now, we're not talking about small increases in rates. We're talking about percentage point increases in rates, very large. We're talking about a collapse in the dollar. We're talking about chaos in financial markets. We're talking about the potential loss of the sovereign risk rating of the U.S. And I don't like to get political in my talks about the economy, but you can't help but be. It doesn't matter whether you're a Republican or a Democrat. All you have to do is look at our political process and see that it's totally broken down.

Our institutions have broken down, incapable of making any difficult decisions. So we know that Republicans could never accept a tax increase, because they've been running on cutting taxes for a long time and that's their platform as long as you can think going forward. And Democrats can't accept sharp cuts in Medicare because that's a key constituency for them. Therefore, they can't accept the Blue Ribbon Commission because the Blue Ribbon Commission would come up with, you guessed it, increases in tax rates and sharp cuts in Medicare. Everybody knows what's going to happen. Everybody knows that. It's no secret. But we also know we can't get there.

Now, Herb Stein, a very, very wise economist, said, in an often-quoted remark, if it isn't sustainable, it won't continue. I know it sounds like Yogi Berra again. But that’s obvious, so we know it isn't sustainable, and it won't continue. So all we're really talking about is when does it end, how ugly is the ending. And my view, unfortunately, is well, I have no idea when it's going to end, but it's almost certainly going to be ugly. Okay.

So monetary policy also affects something that's very important to you and that's the yield curve. And

Don Kohn covered this extremely well. And the point is that while it typically does, it's really uncertain that you can sort of predict the ways in which monetary policy affects the yield curve, though I would say it almost always narrows the yield curve. As short-term rates go up, long-term rates already have reflected that expectation. They're long-term rates anyway, which are an average of short-term rates over say the ten years and therefore long rates are going to go up a lot less than short rates. Alright. So you've got to manage yield curve risk. We're talking about spreads. As Don Kohn said, the business of banking is making money off spreads. It's maturity mismatch, it's the very heart of banking. So you got to worry about that. We talked about inflation expectations. That affects the yield curve.

Short-term rates are always pinned down by monetary policy. Long-term rates are very sensitive to long-term inflation expectations. So the first thing we'll see in the yield curve, as Don said, is incredibly steep today. Some people believe that that already reflects some angst about inflation in the markets. But if that angst increases, we'll first see a widening of the yield curve and then we'll see a dramatic tightening of monetary policy and a narrowing of the yield curve. Things will really get whipped around.

Asset bubbles we've talked about. And mortgage spreads. I mean, that is the near term risk. We're talking about the end of March, when we're going to see the end of MBS purchases. And, as we said, there's uncertainty there, but not nearly the uncertainty if the Fed begins to sell assets from its portfolio. Now, what do I think is going to happen? I think that will be the last thing to happen, if it happens at all. And I think the view is sort of coalescing, although obviously the committee is a long way off of having to decide this. But the view is coalescing, that notwithstanding market perceptions today and market concerns, the FMOC is likely to sell MBS. But to do so very gradually and with, hopefully, extraordinarily good communication with the markets, letting them know exactly when they're going to begin, exactly how much they're going to sell each month, exactly how long this process is going to go on and making those sales relatively small and viewing it as just a complement to runoff, just speeding the return to a normal portfolio.

So I think this is where I want to conclude. Interest Rate Risk is something that should certainly be on your minds. You certainly need to protect yourself, particularly in an environment where short-term rates are historically low. But this is the point about managing risk. You don't know. We don't know for sure. Our clients, as I say, need to know. Most of them are hedge funds and proprietary trading desks. That's where they make their money, guessing when the Fed is going to ease and how aggressively and betting on it. Now, if you think you're not like a hedge fund and not like a proprietary trading desk, well, it's true. You don't make such bets so explicitly. But your portfolio allocation, your portfolio mismatch, you know, is based on some speculation about how much risk you face and how you've adjusted to that risk. So we're in uncertain times and that means that risk management has probably never been more important. And all I can say is good luck.

>>JOSEPH JIAMPIETRO
As I mentioned when I started the introduction to this panel, I thought that would provide an excellent context for the balance.

>>MALE SPEAKER
Hi. Well, I'm an analyst at heart. When I heard the topic, my first thought was, I need a framework to evaluate this question. And that's really what I'd like to talk about is managing interest rates is a fascinating study. You don't get tired of it. I tell you. It's a problem nobody's going to solve. The complexity will emerge very rapidly and you can get reasonable insights from fairly simple,

well-constructed models. So what I'd like to do today is kind of talk through how I look at the problem and what I think are the main features and then if there's more questions or something, feel free to grab me later or during the panel questions. So let's get to it.

The key features -- and I'm going to take each of these in turn, is you've got to talk about the risk environment. What are the things we're worried about? Secondly, you've got to model the cash flows. What is it we are trying to value and what's the value we're trying to protect? We have to capture the accounting complexity and that's about all I can say about it. I don't know anything about accounting and rely on the experts. The last two things I have here, specify the objective function, evaluate the solutions, what I'm trying to get at here is we need to build tools, tools that help us make decisions that help us hone our intuition, and they need to be useful. The results need to be useful. And like I said, this is a very practical problem. And you want to get to something that will help you make real decisions because that's what you have to do. You have to -- as Dr. Meyer said, you've got to deal with the markets every day and you make decisions that affect your value and your earnings every day. So let's get to it.

So the risk environment. We're talking about interest rates here so obviously rate markets. And it's not as simple as the swap yield curve or the Treasury yield curve. We've got spreads of mortgages. We've got interest rate swaps. We've got the Fed Funds market and for us we've got all of our deposits and all the different spreads. So we're already defining a very big problem. But let's say we start with the yield curve and some assumptions about spreads.

But also we have to talk about all these economic variables that we just heard about. And we have to talk about those because each of these in turn is going to affect the trajectory of something you're worried about. A simple example is prepayments. And I spend a lot of time worrying about prepayments because we have a lot of mortgages and we have mortgage servicing. And if my housing trajectory is, oh, I think it's going to sort of limp along flat for the next couple of years, I think the prepay environment is one thing because loan-to-value ratios are going to do something. If I think housing is going to take another turn down, loan to value ratios are going to go up and less people are going to be able to prepay.

One of the hardest things about this last couple years is that prepay models don't work the way they're supposed to. They don't work the way that they were estimated to work. And it's very, very difficult to try to -- in terms of econometricians -- identify regions we've never seen before. You've got to use your intuition, you've got to use your data, and you've got to look at what it is you think could happen and really work very hard on updating your models as you go.

Other things we have to think about as you start talking about managing Interest Rate Risk, what's the horizon my analysis is going to work over? And the answer to that question is going to be very different depending on exactly who your audience is and what the specific question you're trying to answer. And as an example, in stress testing -- and I know a lot of us are doing stress testing -- we're doing two years, three years. We're doing fairly long horizons. What I do on my daily evaluation of my discretionary portfolio is more like a year. When I'm doing MSR hedging and worried about Interest Rate Risk in MSR hedging, I'm worried about the next minute and the next day. My horizon is very short.

So I've just laid out a couple principles here. The longer your horizon, the harder it is to get sort of a credible understanding of what your scenario should be. But it's got to be long enough for the market to move and the decisions you're trying to make to have variability. That's why in my discretionary portfolio I kind of look at moves over 3 months to 12 months. And my planning horizon is about a year. But every time you start stepping into these, you've got tradeoffs to make. And so when we specify the tool that we're working on, we've got to say, okay, how long do we credibly think we can create an interest rate path and then the next piece is what's the risk we're worried about? How do we construct scenarios around that path?

And my baseline path -- and typically there are a number of these baseline paths that people will start with. One is the forward curve. Another is to assume the spot curve stays the same -- we don't get any change. Another one is we take economists like -- we take something like the blue chip indicators or an internal economist -- and we'll set up a forecast of where we think the funds rate is going to go and then what the yield curve is going to look like.

We'll get to a base scenario, and then once we've got that base scenario, we've got to begin to talk about what are the risks to that base scenario? And then how many shocks should we lay out around that base scenario? And the simple answer is you’ve got to lay out enough shocks to capture the risks that you're worried about. And that's a little bit glib, but in my world the more shocks, the better, as long as they're smartly chosen.

As you start building this kind of model, what you need to think about is what do I think the critical risks are? Build it, test it. If those don't turn out to be that big, try some other ones. It's really a trial and error thing. But my view is as much as you can do, you want to do, but it has to be smart. Okay.

So we've specified the world we're thinking about and we know what the risks are. Now let's talk about value. We're really interested in valuation of the cash flows that we produce. Let's start with -- I just wrote up a very simple balance sheet. As I said, I know nothing about accounting, but I asked and I got the asset on the right side of the picture here. On the asset side, my simple balance sheet has mortgage products, consumer loans, commercial loans, and corporate loans. I’d say that's a pretty typical simple balance sheet. On liability side, we've got deposits, we’ve got market funding, debt and equity.

So I don't think it gets a whole lot simpler than this. But even in this simple framework, I've already got a ton of things I’ve got to worry about. I’ve got to worry about prepayments on my mortgage behavior. I've got to worry about credit on my commercial corporate loans and my consumer loans. I've got to worry about whether interest rates affect credit. I've got to worry about my deposits. I've got to worry about how my deposits are going to respond as interest rates move through these different scenarios. I've got to build an awful lot of behavioral models. And as I begin to build those, what's going to emerge is I'm going to see a picture of what's going to happen to my balance sheet.

Once I get all that done and start running my scenarios, I've got to worry about oh my gosh, I'm stepping through time and I'm getting cash back. What am I going to do with it? Am I going to reinvest it in exactly the same mix I had on the balance sheet now or am I going to alter the mix? Am I going to grow or am I going to let my portfolio run off? Step by step I've got to worry about all these assumptions. And now I put this at the bottom, the topic here was should I be extending liabilities? I've got to worry about the runoff of my liabilities and I've got to think about as my liabilities run off, what possible decisions could I make. I could fund short, just rolling liabilities short. I could have some sort of rule about trying to maintain a constant weighted average on my liability structure. But I have to make all of these decisions or have some sort of rule about each one of these steps before I can even credibly think about modeling the balance sheet. Okay.

I said I'd talk a little bit about accounting. I do have to worry about how things are accounted for, how I run my company. I have to worry about the income statement. I have to worry about the capital measurements that I face. Here what I say is I go to our policy people, our experts, and I just do what they say, so I don't have a lot to say about this. I just build the model the way it works. And I look at the implications. But this one is really -- my advice, rely on the experts. Once we've got all that -- and I know I'm going pretty fast, but we talked about the risks we face. We talked about our balance sheet. We talked about the cash flows.

Now, what is it we started out to try to accomplish? We want to build a tool that helps us understand Interest Rate Risk. We want to build a tool that shows us how much variability are we really facing as interest rates move around? And as you can gather from the things I've said, this isn't a simple, open up your finance book, efficient frontier from a portfolio optimization problem. It's way more complicated than that simple thing that all of us remember from finance classes. There're often conflicting goals. We're worried about earnings, but we're worried about capital. There're all these things that -- tools like optimization models -- help you resolve those tradeoffs. So that's what we propose to do, is retain the concepts of our simple finance constructs of risk return tradeoff, but build an optimization model that will allow us to understand exactly what those tradeoffs are.

And some of the things -- the relevant variables that I have to worry about, well, net interest income. We’re all banks. That's what we're talking about. What is the net interest income that we're earning? When we flow that through, what are the earnings of the bank? What is the OCI that we're going to face? What is the mark-to-market on our security positions? We've got to worry about what's going to happen if rates go up and we have a big portfolio? The mark-to-market on the portfolio is going to not be so good. We've got to worry about capital ratios and many different types of capital ratios. Concepts of risk that we employ and that I look at, there's a whole mix of them. Earnings sensitivity, net interest income sensitivity, the dollar value of my portfolio.

CVAR is one that you hear in risk management a lot. That's value at risk. And that's a concept we use quite a bit in our specific tools because we like to look at our risk management trading using CVAR and we’ve kind of grabbed those concepts because it gives you an idea of how much risk you have down in the tail of the set of scenarios you're looking at. And that’s one we like to look at. Equity duration is one that's thrown around a lot. Economic value of equity is another one you hear. There're a number of these concepts.

Each firm is going to have a different set of concepts they like to look at. I'm going to show you on the next page an example of what I really look at on a daily basis. And, again, these are sort of simplified a little bit, but it will give you an idea of what we really want to look at. So I'm trying to capture at the top -- I'm going to build a model that says let's maximize NII, the interest income I'm getting on a monthly, quarterly basis. But I'm also going to worry about what my mark-to-market on my portfolio is going to look like on the back end. So this is kind of a total return concept. I'm looking at the cash that's coming in, the NII, but I'm also looking at where I am at the horizon. But I'm going to say I can't take too much risk to maximize this construct. I'm going to have a clear picture of each of these variables is going to be subject to some absolute limit on the amount of risk I can take.

And I also have, as I look at these trajectories, I'm going to build out my capital and I'm going to say I can't let my capital go below certain trigger amounts or levels that I've specified, either at a policy committee or something of that sort. Alright. So now I've specified the mathematical construct. I've convinced you I know how to model my cash flows. I've set up the interest rate environment. I run my optimization and it's going to say okay, what are you going to let me move around?

Well, I'm going to let you move around a few things. I’m going to let you move around the debt maturity, which is one of the things we're talking about here. I'm going to let you move around the deposit mix. And we've been talking about deposits and the real question is, you know, how quickly does deposit pricing respond as rates begin to go up? That's going to be one of the critical pieces of how my balance sheet's going to respond and when I build my behavioral models, that's going to be one of the critical assumptions about how much I have to worry about debt maturity because my responsiveness on my deposit function is going to matter a lot. I'm going to look at the asset mix. If I look at discount mortgages, I'm going to have one kind of profile. If I look at premium mortgages, I'm going to have a profile where prepays are going to hurt me a lot. But if rates go up, prepays will slow down and I'll continue to earn reasonable coupon income on those premium mortgages. So the mix of different types of things -- mortgages, whole loans.

I have interest rate vehicles I can throw in here. And then finally again I talk about reinvestment. I've got to talk about the mix I start my company with -- this much mortgages, this much asset-backed, this much consumer loans. Is that going to maintain itself? Am I going to continue to make new loans that preserve that mix? Or am I going to have some sort of trajectory that would be different from the one I start with? Am I going to be growing? Am I going to be running off? All those things go into the model.

And then finally how am I going to roll over my debt? What is the strategy that I would like to employ in rolling over my debt? Do I want to kind of say, okay, one month rolled off, so I replace it with a one-month or something that started out as a seven-year rolled off so I replace it. I have to have some concept of how I rolled that over. One of the nice things is after having done all this, I can put it into a set of computers, let it run and get answers that come back out.

And the answers are fairly standard optimization techniques that we can use. The results will be trajectories for all these things I've talked about in terms of leverage. The results will be here is the strategy you ought to employ in debt. Here's what your deposit mix should be and your asset mix should be and here's how your reinvestment strategy should go if you want to grow or not. I get the results and then it will tell me under these conditions, here's what you can expect NII and OCI to look like and here's the range of values across the scenarios you started with.

And then you decide, is that important? Do I have risks that are too big in the tails or not? And then you go back and you can play with it some more. Having done all this, I have to say, okay, Walter, that's great, it's like you're back in school, you've built this really abstract thing. Is it useful at all? And my claim is it's very useful. But you have to understand that optimizations are only as good as the inputs and the assumptions that you started with. They can be really, really stupid. I mean, they can tell you, oh, go out and buy a trillion dollars worth of Fannie Mae 6s because they're the greatest thing around. When you see that, what you know is that your model for prepayments on Fannie Mae 6s is just wrong. So you have to temper this with your intuition. You have to test the robustness of your results. And you have to go back and say it's telling me something that I'm not sure makes sense with my intuition, so you go back and you say, oh, this assumption's not good or these results don't make a lot of sense, so maybe I change a parameter or something.

And you really have to look at a range of things. But it gives you insight to go with your intuition and it gives you a tool that allows you to really think about what's going to happen on your balance sheet. Now, I've run through this fairly abstractly and quickly, but I do want to stress I think these are real, working tools that you play with. You can start with something very simple. You can build this in a spread sheet with very simple 20 -- you know, ten scenarios, five different types of assets and you can get real intuition on what things are happening just with simple versions. You can test it. You analyze it. And then you keep adding complexity.

What I have at Bank of America, at this point I have running night and day about 14,000 CPUs that help inform me on how I look at this balance sheet. But sometimes when I don't like the answers, I'll go back and build a simple model within a spread sheet that employs these principles and I say, oh, now I see what's happening. This is what's going on. I'm worried about prepays are the critical feature. Or the assumptions I make on my deposit re-pricing are the critical feature. So I really encourage everyone here to think about the framework, to play with it, to push it and, you know, for me, it's just a fascinating problem and there's always plenty more to learn and do with it. And I'll stop there. Thank you.

>>JOSEPH JIAMPIETRO
Thank you very much, Walter. Our final presenter is Howard Atkins, Senior Executive Vice President and CFO at Wells Fargo. Mr. Atkins is responsible for the firm's financial management functions, its investment portfolios and its corporate property functions. A 37-year veteran of the financial services industry, he joined Wells in 2001. He is a member of the American Bankers CFO Advisory Board, the Financial Executives Institute and the Conference Board.

>>HOWARD ATKINS
Thank you, Joe. It's a great pleasure and a great honor to be here this morning. Thank you, Sheila, for inviting me. Happy to talk to you. One of the upsides of being in the industry for 35 years is you get a chance to see it all and I really have. So hopefully I can share some insights with you. In this day, I always get asked the question do I lose a lot of sleep worrying about interest rates. And the answer is no. Now, I only get one hour of sleep every night, but it's a really, really good hour.

But that kind of illustrates, really, what is really happening in our world these days around Interest Rate Risk management. There's a lot of work that needs to be done to really understand Interest Rate Risk. It does take a lot of time. I think that Walter did a really good job of explaining all the detail that goes into this. If you do it right and spend the time and make the effort and really get to the insights about what's going on in your balance sheet and your operations, you can get that one good hour of sleep every night.

Walter took you through all the significant detail that really needs to be embedded in Interest Rate Risk management. And we agree with that. You have to go through it. It's all necessary. The one danger, though, of only focusing in on the detail is sometimes you can lose sight of the forest for the trees. I'm going to keep you more macro focused here as I go through my discussion with you.

The first thing I want to tell you before getting into detail is, if you don't have an ALCO process, you're not going to manage Interest Rate Risk right. I assume all of your firms have an ALCO process. That's absolutely necessary. It's way beyond good governance. You have to have it to understand -- to really get the right insights around Interest Rate Risks in your firm. We have an ALCO process that's comprised of most senior executives in the company. The CEO of the company chairs the meeting. Our senior business leaders are all involved in the process. We meet once a month. We do rigorous analysis at that meeting. The results of our ALCO process are shared with our board of directors. You really do need to take it to that level. The board needs to be involved in this.

Obviously, we disclose our Interest Rate Risk publicly through our 10-Qs and other public documents. Maybe most importantly in all of this, the work we do in ALCO around Interest Rate Risk management and liquidity management is linked very closely into the other financial management processes of the organization. So our profit planning, our rolling earnings forecasts, capital stress testing -- which has become very, very critical -- and our ALCO simulation work and analysis are all linked together in terms of the assumptions that are being made, the scenarios across which we are analyzing all those results and they all inform each other so it's all integrated. That's really a critical part of the process.

Let's go through -- In thinking about Interest Rate Risk at Wells Fargo, we do simulation analysis and we look at duration of equity. I'm not going to talk too much about duration of equity here. I'm going to get you into the simulation work in a second. We do the simulation work both in terms of what we call a static analysis and holistic analysis. The static analysis is basically shocking the balance sheet against either instantaneous or sort of more gradual but pretty significant changes in interest rates. You have to do that. That works very well to really sort of get a quick grasp of where the issues may be in your balance sheets.

There are any number of issues with doing that, one of which is shocking around rate scenarios. In most interest rate environments, that makes some sense. But when interest rates are at zero, you know, shocking down from there doesn't really make any sense, right? So you can't just stop with that analysis. So we take a look at a more -- things on a more holistic basis as well, looking way beyond the balance sheet of the organization. And, frankly, in our case for the most part our net interest income and our balance sheet are pretty much locked in. If you take even an one-year time horizon, the balance sheet really moves very, very slowly at Wells Fargo. It's a big balance sheet. Most of it's locked in. So only looking at the balance sheet, only looking at a static analysis is not going to give us the kind of insights that we need to understand in terms of really assessing the Interest Rate Risk of the company.

So we've got to get beyond the balance sheet and really try gauge the first order effects of interest rates on everything else we do in the company and all the second order effects. So we're really looking at economic environments, multiple economic environments, not just interest rates, but multiple economic environments and what they mean to the company's earnings. This is just an illustrative chart on how we look at things. Again, this is one of many things that we look at. And I want to emphasize it's illustrative. Don't look at the graphs here or any of the numbers that I have on this chart as being representative of the current Wells Fargo. I need to say that so I don't get into any disclosure issues with you. So it is purely illustrative.

But basically what you're looking at is the simulation results of the company. We take a time frame. In this particular case it's one year. You can look at net interest income. You can look at net income after tax. You know, this may be NIAT, if you will. And the height of the lines here reflect the earnings of the company or the earnings of some company, and the slope of the line, the shape of the line and the contour of the line represents the rate risk, if you will, of the organization. As you can see, we typically show on a chart like this at least two time periods. So we take the results from a couple of months ago. I labeled that October here. And the results in January, sort of the current month, if you will. And the purpose of that is to show trend. So we want to understand how our Interest Rate Risk is trending over time and not just where it is right now. That gives us insights into how it has changed and why it has changed to enable us to understand how much risk we have at the current moment.

You'll also note that we are looking in the organization both at the consolidated interest rate exposure of the company, as well as the business line. So the two big graphs to the right are illustrative business lines of the organization and to the left is the sum of the pieces. Obviously, the sum of the pieces is what matters to shareholders. That's what shareholders see at end of the game. But to gain the appropriate insights around the consolidated exposure, we believe you really have to look at the main business lines of the company.

There are a couple reasons for that. One reason is not all business lines are static in how much risk they have. Some business lines change very quickly. Some business lines have more structural risks and you can get lulled into a false sense of security if you're only looking at the top of the house without understanding how rapidly the pieces within the house may move. Also, there are many, many things that go on at the business line level in any organization, particularly one as complex as ours, and frankly we wouldn't necessarily know about at the top of the house. And the corollary to that, to looking at things on a business line basis as well as top of the house, is we actually give our business lines accountability for managing their own balance sheets. Now, it's done within guidelines and limits that are set at the top of the house. But this is very much you own it. And the Interest Rate Risk in a business is owned by the business. We get a chance to sum it up at the top of the house. Very, very important principle.

The other thing this chart will show you is that the lines here on the chart are not linearly sloped. They're bent. You can see that both at the business line level as well as at the consolidated level. So doing your simulation work properly really forces you to capture the optionality in the balance sheet and the interest rate optionality in your businesses. So small interest rate movements may be linear, but larger interest rate movements may not be and may pose risks that are not necessarily captured when you only look at short swings in interest rates.

Two examples of that would be obviously mortgage prepayments. Walter talked at length about that. So you get extension risk and prepayment risk in any mortgages that you have on your balance sheet. Small changes in interest rates don't necessarily pick that up properly. And of course many of us have either explicit or implicit floors in our deposit pricing. In some cases we have explicit or implicit floors in our asset pricing. And those -- hitting those floors is something that can be captured if you do it properly in the interest rate simulation work.

So, again, this is just the main way we look at it. And the -- before leaving this chart, I guess the final thing I'd point out is obviously simulation work is heavily assumption-dependent. Walter touched on this point in his remarks. The main importance of understanding that is to go back and retest your assumptions. So we are constantly recalibrating the assumptions that we make when we think about Interest Rate Risk in our modeling based on actual experience. And an example of that perhaps for you would be the way we simulate how deposit pricing changes for given changes in the Fed Funds rate.

We use what we call a grid. We have about 25 or 30 different deposit products in the organization, each one of which behaves differently with respect to changes in the Fed Funds rate or other interest rates. And we use that grid to do our simulation work. And we're constantly recalibrating that grid as we see actual experience in the market and how actual behavior can be refactored into that grid. So just one example of how it's really necessary to retest, recalibrate your assumptions when you're doing all this work.

Two things that are not shown on this table that are important, I talked about duration of equity before. This is not a duration of equity analysis. But duration of equity analysis in our view is very, very important. So we're talking about measuring the duration of your liabilities, measuring the duration of the assets. That's necessary, of course, because a one-year time frame simply is not sufficient to capture the long-term Interest Rate Risk of an organization which occurs very slowly, but very fundamentally over a long period of time. There's lots of different ways of doing that. We happen to use duration analysis and we try to keep the duration -- the net duration of equity pretty close to around zero. So we think about our bond portfolio, for example, and we look at that. Obviously that factors into the short-term earnings simulation analysis, but we try to manage our bond portfolio with a view towards net equity duration of the company pretty close to zero. That's important I think in talking about bond duration and the bond portfolio.

You know, many companies today are assessing, determining their investment portfolio strategies in the context of making up for weak loan demand or to get carry from the yield curve. Neither of those two things at Wells Fargo is particularly important. We don't buy bonds at the company to make up for a loan demand or lack of loan demand. And we actually don't look at the yield curve fundamentally when we think about how many securities to hold on the balance sheet.

What we do look at, again, is the net duration of equity. So we have a very large and very -- and rapidly growing base of core deposits, which typically are longer duration deposits. As that base of deposit grows, the duration of our liability is extending, and therefore that creates a need for more bonds in the portfolio. So that's one primary factor. The second primary factor is not the shape of the yield curve, but the level of long-term rates. And this may sound a little bit like speculation, but it's really not. What we try to do in our bond portfolio is recognize that long-term rates are volatile and buy when we think long-term rates are very high. Again, not necessarily the yield curve, but the absolute rates are high, and actually sell when long-term rates are very low. What that does is gives us a chance to optimize the yield that we're earning on the deposits that we have by basically keeping our investment portfolio in line with our deposits and trying to catch tops and bottoms on long rates, again, irrespective of the yield curve.

Couple of principles here on interest rates before I turn to liquidity, which I'd like to talk about briefly. When I think about answering the question how much Interest Rate Risk should a big financial institution or a financial intermediary generally have, I keep on coming back to the answer not a lot. You know, when I think about interest rates, we heard this in Dr. Meyer’s talk, you're talking about uncertainty. Interest rates -- very often in my view -- are basically a 49/51 proposition and frankly those odds are not particularly great when you're managing a bank. Maybe it’s okay if you’re managing a hedge fund but not when you’re managing an organization. So as a company, we try not to take very much Interest Rate Risk, whether it's short-term Interest Rate Risk or duration kind of risks.

Now, inevitably we all have Interest Rate Risks in our businesses. You know, imagine a situation in which you get a deposit, you'd have to immediately lay off the loan or if you get a loan, you have to find a matching deposit. If we try to operate that way, we’ve never be able to manage our companies So some amount of Interest Rate Risk is inevitable in what we do. But we think that the proper way to think about and manage Interest Rate Risk is to minimize it, to not take a lot of Interest Rate Risk as a company. We think of interest rates sort of as a risk management -- as an insurance policy. If we're not taking a lot of Interest Rate Risk, we're protecting the downside, our operating businesses individually and collectively can enjoy the upside of doing well. So when we try to manage Interest Rate Risk, we're not trying to think through how much money we can make by taking Interest Rate Risk, we're thinking through how we can limit the downside and not take a lot of Interest Rate Risk as a company.

I talked about static and holistic measurement before. Simulation for near term; duration for long term.

Doing it both on a consolidated basis and business line basis and I talked about the investment portfolio. So those are our thoughts around Interest Rate Risk.

Let me shift quickly to liquidity. There are a lot of similarities, in our view, between how one manages Interest Rate Risk and how one manages liquidity risk. There's at least one very fundamental difference though between Interest Rate Risk and liquidity risk. That has to do with the consequences of being wrong. If you get your Interest Rate Risk management wrong, that's not necessarily life-threatening. If you get your liquidity management wrong, it can be and very often is life-threatening. I like to think of liquidity as being a little bit like breathing. It's very easy to take it for granted, but, you know, if you stop, you're dead.

So this is really important stuff. And so necessarily when you think about liquidity, liquidity ultimately is involved with extreme circumstances. You know, small changes in markets on a day-to-day basis really are not the kind of life-threatening things that one thinks about in liquidity management. But, you know, individual company and market-specific events that are extremely stressful are really what liquidity management is all about. We've now had the experience of being through that kind of situation in the last two or three years, which is one of my messages back to you. Let's learn from those experiences. There's a lot of information that we individually have and maybe we can be collecting from our regulators around what has happened and what experiences have been successful and not successful in the kind of very stressful environment that we've all been operating in.

It used to be the case, you know, many, many years ago that the essence of liquidity management for very large financial institutions that operated predominantly in the wholesale, in bank funding markets, was to make liquidity management reliant on how much money you thought you could get from the marketplace. Many banks used to even test occasionally -- you know, go into the market and test the line limits that other interbank counterparties had for them in the marketplace. And that's what liquidity management was all about.

I think we've all learned that you can go through that analysis, but relying on being able to go to the market for your liquidity when you need liquidity is not a very good way of managing liquidity. You have to have it on the balance sheet. And this particular chart shows you one of the things that we look at and, again, the bars themselves are not necessarily representative. But this shows you what we call net liquidity, net liquid assets for our company. Again, illustrative. So what this is showing you is literally the sum of the liquidity that we can actually point to on the balance sheet plus collateral that we know we have on the balance sheet or can get very quickly as a source of borrowing either from the Fed or from FHLBs or other sources that can provide liquidity against collateral in relationship to the potential funding requirements that the organization may have over a defined time horizon.

And the positive nature of these bars shows you the net amount of liquidity that we think we carry on the balance sheet. I'll tell you, this progression here is somewhat representative of our organization because we have gotten progressively more liquid in the last year or two. Couple of principles around this. Again, liquidity has got to be on the balance sheet. That has to be tested. If we're going to say that we can securitize assets that are on the balance sheet, we have to be able to back that up and periodically test the securitization markets to make sure they are open to us against the particular collateral that we have.

On the collateral that we maintain on the balance sheet, you've got to know where it is, where it's held, that it's not double-counted, that it actually is eligible and so on and so forth. So it's got to be real collateral. Securities have to be unencumbered and so on and so forth. So there's a lot of testing and recalibrating that goes on behind these numbers to make sure that this liquidity really is available to the organization. And the final thing I'd point out before getting to the principles on liquidity has to do with what I'll call early warning indicators around accessing the liquidity that you have on the balance sheet. Many companies when looking at liquidity will take a time frame, look at their liquid assets, start at point zero and do an analysis which says how quickly can I get at those liquid assets and how quickly are my obligations coming due in that time frame?

My point here is if you only start at time zero in that analysis, you're not going to get this right. You have to get earlier than time zero to start to think about when you start pushing -- pulling the lever and pushing triggers. And a couple of things that are important there, in our view -- how your debt is performing in the marketplace. So one of the things that we actually have a process around, a formal process around, is that we look at our debt spreads in the marketplace. And if our debt spreads move beyond a certain point, widen beyond a certain point, that is a reportable event to our board of directors. And the reason for that is to make sure that the organization is already thinking about what it may need to be doing before you get to that time period zero where your assets start coming in and your liabilities start going out. So you can't wait around for the event.

And market signals are important in this context. One thing that maybe we can think about from a regulatory perspective and so on is to make sure that every bank has some debt in the marketplace, that there is debt in the marketplace which can provide signals both to the bank and to the regulators around what may be going on [indiscernible] in the marketplace.

So a couple of principles around this. Again, having liquidity on your balance sheet is really key here. That needs to be looked at over multiple time frames. You know, if you pick a year and you just do your cumulative analysis, you're going to miss something. If all of your liabilities are maturing tomorrow and your assets aren't coming in until day 364, that's going to show you as having no problem if you're just doing it on a cumulative basis, but obviously you're not going to get to day four if all your liabilities are maturing first. So you have to look at periods within your time frame as well as cumulatively over different time frames.

Looking at liquidity at both the parent company and on a consolidated basis is key. The reason for that, as you know, is that that money is not fungible always between the parent and the rest of the organization. The parent has to be a source of strength to its subsidiary banks. So parent-only liquidity analysis is really important and necessary. Stress testing is key here. I can't emphasize that enough. If it's important in interest rate risk management, if it’s important in capital, it is critical in terms of thinking about liquidity. You have to think about liquidity in the most stressful situations and understand what that means and how you can react if you're in that event.

We can all learn from the lessons of the last two years. And other things to manage and think about beyond just the quantity of liquidity, I talked about gaps within the time horizon, spreads on debt, market signals. We also happen to look at counterparty concentrations. We have specific limits in the company around how much we can be borrowing from any name, not just an end of bank market, but from anybody. We have some very large depositors and when we get to a point where we are breaching a -- potentially breaching a -- concentration limit, we say no.

And obviously the relationship between your wholesale funding and your retail deposits is critical. Again, when you're doing your rolloff analysis, it does make a difference whether the deposits that potentially are going to rolloff or come due for you are wholesale in nature or retail in nature. You've got a much better shot at replacing them if they're retail than if they are wholesale. So all these things have to be looked at. With that, I'm sticking to my story.

>>JOSEPH JIAMPIETRO
Thank you very much.

I had the smallest panel and I thought we'd definitely have time for questions, but I think we've kind of used up our time, right, Marc?

>>MARC STECKEL
I think that's right. Thank you, Joe, and thank you to all the panelists. If I could give you a little bit of direction right before lunch, the catering staff has asked if we could step out for a few minutes. If the room is empty, they can set up lunch. They'll go ahead then, when they are ready, invite us back in and we can enjoy our lunch. And later after we've eaten, we'll enjoy our lunchtime speaker then. Thank you.
>>MALE SPEAKER
Good afternoon everyone. If I could have your attention up here on the stage? I would like to introduce our luncheon speaker. We are very pleased that Mohamed El-Erian is here to share some of his thoughts today. He is the CEO and co-CIO at PIMCO, the global investment management firm which currently has about $1 trillion of assets under management. He worked for 15 years at the IMF before moving to London to work as a managing director with Salomon Smith Barney. He has written widely on global economic and financial issues. His recent book, When Markets Collide: Investment Strategies for the Age of Global Economic Change has been a best seller and recipient of several awards. Please join me in offering a warm welcome to Mohamed El-Erian. [Applause]

>>MOHAMED EL-ERIAN
Good afternoon everybody. It is a real honor and a pleasure to be here and I would like to thank the organizers for inviting me. I would particularly like to thank Chairman Bair. I first got to meet Chairman Bair almost four years ago when I served on the Treasury Borrowing Advisory Committee, TBAC. She came in at lunchtime to speak to the group and I also had the privilege of serving with her on a panel. In both cases, she was worrying about things that were far ahead of what the rest of us were worrying about. She was looking around the second corner, if you like, when we were focused on the first corner. She was very early in identifying issues about mortgage underwriting and calling attention to them. I remember when she came to TBAC she said how she wanted to prepare the FDIC in terms of human resources for the possibility that we may face a financial crisis. And she certainly has kept an eye out on how to make sure the FDIC meets its responsibilities while also stretching every dollar of taxpayer money, which is very important in today's environment. I interpret this symposium about Interest Rate Risk, as yet another signal of the importance of thinking about what could happen and asking the question, “How prepared are we for what is ahead of us?” That's how I think about this symposium. When I look at what you have covered so far, in terms of identifying Interest Rate Risk and thinking about mismatch in the security structure--about how to handle this risk, how to hedge it and how much should be done via regulation and how much should be done by the price mechanism--these are really critical questions and I can tell you at PIMCO, we worry about them every single day. What I would like to do in this presentation is go one step earlier in the process and ask much more general and much more controversial questions. What I would like to do with you today is ask the question, “Is the institution base--private institutions and public institutions--able to navigate what lies ahead? Are our collective initial conditions, our collective mindsets, our collective instruments adequate to what is

ahead of us over the next few years?" I will take the issue of Interest Rate Risk and place it in a broader context and there is probably a reason why you are listening to me after the main course.

Okay, because I will suggest to you the answer is we are not ready enough. We still have work to do collectively to get ready. And I will take examples of that and I will relate them to things that are familiar to us. I will relate it to just natural recognition lags. It takes a long time to recognize that paradigms are changing. I will talk about how behavioral finance helps us understand why even when we recognize paradigm shifts it is difficult for institutions to adjust. I will talk about inadequate incentive structures and I will talk also about partial visibility and lagging research. In doing so, I will be sharing the thoughts of my PIMCO colleagues. We tend to try to look forward and we do that through a very structured process. Up front I will tell you about our three analytical anchors. The three things that are like a compass to make sure that we don't head off in the wrong directions. And I would argue that we all should have these somewhere on our radar screens.

The first is to recognize that we are still in a process of sequential ballooning of balance sheets. This is a balance sheet process. We have had a balance sheet recession. These are not normal cyclical things. We have had a series of balance sheets that grew beyond what the system could cope with. It started with housing, then it went to the big banks, that in turn contaminated the household sector, and that in turn contaminated the public balance sheet. So think all the time that we are talking about a sequential contamination of balance sheets that started in one sector and migrated to different sectors. This is why this notion that we should think about where we are coming from as a flesh wound -- as a cyclical flesh wound makes no sense. Balance sheet recessions are not cyclical flesh wounds. They are something much deeper than that and they expose lots of issues over time.

The second big cyclical anchor to remember is that we are no longer alone in the world. In the old days, we could just worry about the United States and other countries would adapt to whatever the U.S. does. Today we live in a very different world. We live in the world where some other countries have better initial conditions and have reached a critical mass in terms of their development process. If you like, it's a journey from a unipolar world to a multipolar world. We can no longer think of the U.S. as this large closed economy, but rather we have to acknowledge that we also are influenced by what is happening outside.

My third secular theme up there on the radar screen has to do with the label. Yes, 2010 is a post crisis year that is correct. But that phrase, post crisis, obfuscates more then gives visibility. I like to think of it differently. We are in the third year of the crisis as opposed to in a post-crisis year. The first year of a crisis was really 2008 when the crisis erupted. It really caught all of our attention in ways we would like to forget pretty quickly. 2009 was the phase of crisis management where there was massive reaction by the official organizations including the FDIC. 2010 is about the slow resetting of the U.S. economy. It's about the rehabilitation of the U.S. economy. Yes, it is post crisis, but we are not yet at an equilibrium. We are in the process of getting to an equilibrium. 2010 is a transition year. 2010 is a year in which all of us will have to navigate all sorts of things that we have not seen before.

And that raises immediately the central question of my presentation, are we ready to do so? Is the institutional base or our collective mindsets ready to do so or not? To shed light on this, let me suggest doing the following, I will tell you what we interpret, what we see out there. Which is what 2010 should be about. What has now been internalized in market valuations in the behavior of some major players in the private sector, so the first part of my presentation will be what should 2010 be about if you are dominated by a cyclical mindset which is the case today in the world. The second part is not going to be about what 2010 should be about, but what 2010 is likely to be about? And the third part will be what are the implications and they likely are not the same.

It's good for us to argue about how things should be but ultimately how we navigate our institutions depend on how things are likely to be. So if you were to judge the world by market valuations, correlations, and more particularly, the mindset of some of the large actors out there, what do you see? We would suggest the following hypotheses: You see confidence that the global economy will reset at quite a high level of economic activity. You see confidence that we are near a point where balance sheets are back on side after having been horribly off side. You would see confidence about the ability to navigate this handoff between temporary and reversible government intervention and permanent, normal market functioning. You would see confidence about the weight and the ability to protect the institutional integrity of various public entities and you would see confidence about the ability to coordinate at the global level, the G20.

This is a long list. And it is not something that can happen overnight. But our feelings are that too many markets, too many institutions have assumed that this will happen quickly. I can take you through lots of studies but trust me that we have done a lot of that, when you worry as much as we do about the retirement savings of people, the investments of people, you go through a tremendous amount of what if, what if, what if. And our sense is that consensus today in markets is pricing a pretty healthy handoff in growth dynamics from temporary sources, government and inventory to permanent sources, private final demand. It is pricing a relatively smooth exiting for many unconventional facilities. Not only the provision of massive liquidity, but also an exit from having a noncommercial buyer in different markets. It is pricing in that we will be able to achieve something that other countries have found difficult to achieve which is redistribution with high growth. It is pricing that we will get a credible fiscal package that will address the large -- the very large increase in debt to GDP and the high fiscal deficit. It is also pricing that the major institutions will be able to function based on technocratic considerations as opposed to political considerations and then it is pricing an international rotation of growth dynamics from the west to the east.

This is what you need to justify the consensus expectation and this is what you need to justify a lot of what certain institutions are thinking today. That is why there is this obsession with growth rates. Everyone is looking at growth rates. But remember what Mervyn King, the governor of the Bank of England said in August of last year. At a press conference, he seemed to be getting irritated by the questions because everybody was asking about growth rates. And his response was and I quote, "it's not about growth rates stupid. It's about levels. It's levels that matter not growth rates." When you have a major balance sheet shock, when you have a major balance sheet recession, levels are very important. So why is it that we are so far away from being able to really predict what is going to happen?

First, we've made a simple assumption that the level problem can be fixed by flows. Okay. All of us one way or the other prefer to live in a world of rate of growth as opposed to levels. Yet we see contradictions all over the place. Let me cite two contradictions that are very important in the nation's capital. We have an employment issue, 10 percent unemployment, but really 17 percent un- and underemployed. One in six. That is not only a high level but is likely to stay high for a long time and as a society, we should worry about that because skills get eroded very quickly especially when the unemployment is concentrated among the young. So this is an economic and a social issue. Thus the notion that unemployment at these high levels is more then a lagging indicator--it's also a leading indicator because it predicts changes that have to occur elsewhere.

So we have this employment problem, but on the other hand we have a deficit problem. Our debt to GDP has gone up very rapidly. We are running a deficit in excess of 10 percent of GDP. We've been able to finance it well so far because that's what happens in an initial period of crisis. When there is a crisis there's a massive flight to quality that helps the sovereign, but we are starting to see sovereign issues around the world. The first contradiction we see very clearly is between the employment objective and the deficit objective. The second contradiction we see very clearly, it will be very familiar to some people in this room, is what do we want our banks to do. On the one hand we want our banks to lend because we care about the real economy, we care about small businesses and much of them depend on bank financing. On the other hand, we want our banks to de-risk because we care about systemic risk.

When you see these contradictions, they tell you that there are structural elements in play. And they require structural approaches. A cyclical mindset and a cyclical approach will be frustrated. That is true at every level. At the level of the households. At the level of the firms. At the level of the public sector. It is easier to understand at the level of the public sector because we have elections. So elections tend to enforce a cyclical behavior.

It is often harder to understand at the level of institutions and households. Here we have benefited tremendously from the work of an academic who is at the London Business School called Don Saul who wrote a book called The Upside of Debt Turbulence. Professor Saul made his reputation on looking at successful firms and asking the question, how does a successful firm react to structural issues? You would expect successful firms to be the ones easiest to react. But that is not what his research shows. His research shows that even successful firms, even the most successful of you in this room would have difficulty navigating paradigm changes.

Let me give you a few examples that are familiar to most of us. IBM and the PC. IBM was totally dominant when the PC was introduced. IBM was profitable, IBM had a very high R&D program of spending. IBM saw the PC coming as a paradigm shift and IBM's response was to invest in a better mainframe. The U.S. tire industries in the 60s, totally dominated the biggest market in the world; they were very profitable. They saw Michelin introduce a radial tire in Europe. They knew that Michelin in one year's time was going to come to the United States. It was a paradigm shift. What did they do? They invested in a better three ply tire and went to the five ply tire. As a result of that, most of those companies were either bankrupt or facing difficulty within a few years.

The reality is that a system does not adjust easily to paradigm shifts because we all have a whole host of internal commitments that lead us to forget about our maturity mismatches. They lead us to forget about what is ahead of us and think that by reacting the way we have reacted in the past will help us navigate the changes. But that will not work if it is truly a paradigm shift, if it's truly a process of resetting as opposed to a cyclical recovery. So we should keep these issues front and center.

When you look at Interest Rate Risk, ask not whether you can manage just a complete change in both the level and shape of an interest rate curve. Also ask the question, can you manage these bigger paradigm issues. When you put down all of these issues, when you ask the question, what if the handoff from temporary government support to permanent private sector final demand is not as smooth as what is currently priced in. What if unemployment stays high in a system that assumes that unemployment is not very high because we always assume that and are proud of the fact that we have very flexible labor markets. What if the system reacts differently to something it has never seen before which is a simultaneous shock to the fiscal position of virtually every advanced economy in the world.

That is something that we have not seen in modern history. What if the banking system has difficulty in restoring the confidence of society? What if the political system goes too far in correcting and in incorrectly correcting a system that has privatized massive gains and has socialized massive losses? What if, what if, what if.

If any of you have seen one of my favorite movies, My Big Fat Greek Wedding, you remember the father when he is confronted with this notion that was totally alien to him that his daughter would marry someone who is not Greek. For him that was a paradigm shift. And he says what if, what if, what if and all of these questions. And his answer was I don't know, I don't know, I don't know. And if we are honest with ourselves there are lots of things we don't know in terms of what is ahead of us over the next few years.

So what do you do when you don't know? Paralysis is not the right answer. Okay, you try to figure out not what can go well, but what can go badly. For most of the institutions in this room and certainly for PIMCO and others, you confront the reality that business diversification is necessary but is not enough. It is necessary but not sufficient. You also need to be very clear about what your fat tails look like. You have to be very clearly about what you are able to hedge in a cost effective way and if you are not able to hedge in a cost-effective way, don't do it. It's that simple.

Think about your left tail as much as you think about your right tail. Recognize that the regulatory environment will remain unsettled for a while. It takes time for a regulatory environment to reset. It's like playing tennis when you are not sure where the out line is. The out line is moving in and out. So you don't want to get too close to that line. Because it will take time for the regulatory environment to reset. And think very carefully about the public policy risk factor. It's not enough to think about liquidity risk, about credit risk, about Interest Rate Risk. That is all important but one also has to think about the public policy risk factor especially as public balance sheets have grown to very large amounts. Let me conclude with the following observations. Yes, we may be in a post-crisis world, but more accurately we are in the third phase of the crisis. And 2010 is not about a cyclical recovery, 2010 is about the multiyear resetting of both the U.S. and the global economy.

In this context, do not hold hostage to a cyclical mindset. A cyclical mindset will let you down. Think more broadly and think in terms of a structural mindset that recognizes that post-crisis dynamics are tricky and complex in terms of how they interact. And what they fundamentally do is they expose structural issues in all of our lives that require structural solutions. And it is my deep hope that gathering like this, that attempt to look forward, that attempt to identify what lies ahead will help us navigate what I think will be a much more bumpy and volatile outlook than what is currently priced into most markets. Thank you very much.

>>MALE SPEAKER
Thank you very much.

JASON CAVE
[Audio difficulties.] And it's good that they are some of the best because as we have already heard today, the challenges associated with Interest Rate Risk management are complex. And the importance of getting it right is critical to bank profitability going forward. Strategies that might look good today could expose you to tremendous risks down the road so making sure that banks and regulators are looking at the strategies through the same lens will likely save us many of the mistakes of the past.

The regulators have been busy lately on the subject. As you know, the agencies recently issued an advisory on Interest Rate Risk management. I think one of the most relevant passages in that document was a reminder that in the current environment of historically low short-term rates, it's important for institutions to have robust processes for measuring and, where necessary, mitigating their exposure to potential increases in interest rates.

I also saw that a couple of you were quoted extensively in yesterday's newspaper on the subject. I am sure we are all looking forward to hearing whatever you said that was left on the editor's floor. Since these panelists are so knowledgeable, they have agreed to dispense with the traditional format of prepared notes and have allowed me to quiz them on some questions I drummed up on the subject. I strongly encourage all panelists to enhance, augment, clarify or rebut any answers provided by a fellow panelist.

Knowing many of you personally, I don't think that will be a problem. But take heart audience, if there are great questions I might have forgotten to ask, we will leave some time for you to sound off. With that let me quickly introduce our distinguished panel of experts. George French is the Deputy Director for policy at the FDIC's Division of Supervision and Consumer Protection. George oversees the development of bank supervision policy in the areas of risk management, regulatory capital and compliance with consumer protection laws. He is also my former boss, so if you detect any biases in the questions I send his way, well --. Kerri Corn is the Director of Market Risk Policy at the OCC. Kerri oversees the Balance Sheet Management Group which is responsible for liquidity, interest-rate risk, and investment portfolio activities and the Asset Management Group which is responsible for trust and fiduciary activities. Kerri has a great skill of telling it to you straight and that's probably not a surprise to any national bankers out there in the audience. James Embersit is the Deputy Associate Director for Market and Liquidity Risk Capital Markets in the Division of Bank Supervision and Regulation at the Fed. Jim is responsible for coordinating supervision and policy development in the areas related to trading, capital markets, counterparty credit risk management and Treasury management activities. Jim has also spent a lot of time in international circles over the years working on Basel matters, but we won't hold that against you, Jim. And Thomas Day is a Senior Risk and Policy Advisor in the Supervision Department of the OTS. Tom has extensive experience in risk management, risk quantification, portfolio risk measurement from his years as banker, consultant and regulator and I am told that Tom will be taking positions from all of those angles today on these questions so we should look forward to that.

Now that we have all been formally introduced, let me get to the questions. George, the first one is for you. The FDIC recently published an article in its semi-annual publication of emerging trends, The Supervisory Insights Journal, that dealt primarily with Interest Rate Risk. Soon after, the agency issued an advisory on Interest Rate Risk management. I can imagine those two documents got the attention of most of the people in this room. Can you explain what was behind the release?

GEORGE FRENCH
Thank you Jason and good afternoon everybody. It's a pleasure to be here. Good afternoon. I don't know about you all, but I am still shaking a little bit from the sobering luncheon speech. I kind of feel like there is a sword of Damocles hanging over all of our heads. But fortunately, you now have a panel of your regulators to lighten up the mood a little bit. [laughing]

So to look at that guidance, that advisory from the 50,000-foot level, basically we are looking at where we are now in the interest rate environment and where we expect to be at some point in the future and obviously where we are now is at historically low short-term interest rates, a steep yield curve, asset maturities that are lengthening, liabilities that are more on the short side and really incentives in that kind of environment for some institutions to play the yield curve and maybe take on a little more Interest Rate Risk. That is kind of where we are now.

And where we know we are going to be at some point is a sustained period of rising interest rates. We just don't know when that is going to happen. We don't know how sustained or steep the increase will be, except maybe James Embersit might know that. But, we know it is coming and we need to be prepared, and in that spirit, we issued this guidance. How severe is the risk I think from a system-wide standpoint? I probably personally characterize it as a moderate level of risk that is increasing. So it is a good time to be getting out in front of the issue and preparing your institutions to deal with the rising interest rate environment.

What should we be doing about this? What should you be doing? You have heard in all of the panels today, I think good news, that this is a risk that can be managed and can be addressed. It is hard work, there's a lot to it and the regulators expect you to be doing that work and assessing the risk to your institutions in a robust way. So more specifically the guidance reaffirms a number of messages that we have had, long-standing messages--you need to be operating your institutions with prudent and explicit quantitative risk limits that were established by the Board and you need to have policies and procedures to make sure those risk limits are adhered to. You need to have a framework for measuring the risk, monitoring it on a regular basis and it is obviously a complex and multidimensional process so you need to be looking at it for more then one measure of risk. And the guidance does talk a little bit about what the expectations in all of those areas are and updates them with a particular focus on stress testing, for example.

We had the long-standing example in guidance of looking at a 200 basis point rate shock. That was always an example. We have seen that the better run institutions as you saw this morning are obviously looking at more severe rate shocks and they have been. That's what our examiners are looking to see. So we put that into the document as well. In terms of what do you do if your process tells you that you have taken on excessive risk and your capital and earnings are unduly exposed, we are not advocating that you take any precipitous or reckless change in your balance sheet or cut back on lending. It really is that you start to take deliberate and incremental steps to mitigate your exposures and there are a variety of ways that you can do that. So that would be the 50,000-foot overview.

JASON CAVE
Great. Great. Anyone want to add onto that?

>>MALE SPEAKER
A lot of that sounds like some ground that was covered in the '96 statement. It might be good for the audience if there are any specific areas with the advisory changes, updates or enhances the existing statement, in short what do bankers really need to know about this new advisory? Any particular areas that we've added something we want to really highlight. For anyone on the panel.

>>MALE SPEAKER
I will start. I think one of the areas that has clearly been important is the question of time horizon and how far out do you estimate your exposure to Interest Rate Risk -- a lot of banks I think historically have looked at the one year horizon as being the benchmark under which you evaluate your net interest income sensitivity. But just as it was said, the better practice and a lot of organizations would be looking at different shifts in the yield curve not just up and down 200 basis points, but more radical shifts as well

as nonparallel shifts in the yield curve. The same holds true for the length of time under which you estimate your net interest income at risk.

One of the things in the advisory I think that perhaps was not as well articulated in the 1996 interagency statement but really goes back even before to Section 305 of FDICIA and that evolved and conversations led to the 1996 interagency statement, in better run shops I think, there is generally a sense that we see that they are running simulations out to 24 months and in some cases even longer then that. Of course, you run the risk of simulating out too far and most of your assumptions are really around new business that you are forecasting around your balance sheet so you get a little bit -- it just becomes a very large assumption. After five years, a lot of banks, their balance sheet has really wound down and now represents maybe 20 percent and their new business assumptions represent 80 percent of their balance sheet so you can run the risk of not properly specifying those new business assumptions so there is a limit under which that time horizon can be extended. But clearly there is an expectation on the part of the new advisory that institutions explore sensitivities out beyond the 12 month horizon. I think that is one of the things that I definitely took away from the advisory.

>>MALE SPEAKER
Okay, good. Jim, keep going.

>>MALE SPEAKER
Let me jump in here real quick. Just to point out to everyone in the room, especially the bankers, the advisory that was laid out does identify and articulate some basic principles of Interest Rate Risk management but all of us, all of the agencies have a significant amount of additional guidance in our examination manuals and the principles articulated in the advisory that we issued are discussed in much fuller depth, in all of our individual guidance and manuals and so if you have questions to ask about where we are coming from on any of these concepts, that's a good place to go and that is a good place to start. That's clearly where our examiners are coming from.

I would like to make a few broad comments after listening to the panels today. I think by and large, it is my opinion that there are a number of institutions out there that really do a pretty good job of managing their Interest Rate Risk. Clearly net interest income, that is a line item that gets a lot of attention and it should. At the same time, you also know that regardless of how good an Interest Rate Risk management system might be, we as supervisors are going to come in and look for enhancements. This is just the nature of risk management is always improvement. And that is one issue that I know our examiners are always looking at -- how can we improve even very good techniques and very good approaches. There are clearly outliers. There always are outliers. We as supervisors are always focusing on those outliers. We at the Fed, we depend on several models that we look at to identify those institutions that are taking excessive Interest Rate Risk, and focusing our resources and our examiners on those institutions.

I just wanted to say a few things that really occurred to me during some of the presentations that I heard today thus far. I think Howard Atkins really brought up what I thought was a really good point. Maybe it may not have hit home to many of you, but when he talked about Interest Rate Risk in managing that risk and needing to take a more holistic view. What did he mean by that holistic view? What I took from that is -- and it really is one of the key lessons that has come out of this recent crisis -- is the fact that Interest Rate Risk and liquidity risk and credit risk can't be managed in silos. And especially all of us are focusing on asset liability management, the ALCO committees. One of the surprising lessons that I see even though I was making speeches about this before the crisis was just how

ALCO committees and how asset liability management at a number of institutions was not integrated into the overall firm-wide risk management. We talked about that, we've heard about that in a number of questions and comments. I think that is the key. If there's one take away to come from this, everyone is looking for takeaways, it's that Interest Rate Risk and particularly liquidity risk and all of those other alien functions need to be really factored into the overall corporate enterprise wide risk management.

Larry Myers might say that because there are expectations for an extended period of low rates that we have time to assess and get our Interest Rate Risk management processes up to par and prepare for the rise in rates. We don't have -- bankers and supervisors we don't have -- that luxury in the areas of dealing with liquidity and credit risk and all of the other elements surrounding enterprise wide risk management. I think that was one issue that really came up to me and I will just make one final issue. That is my 50,000-foot comment.

I think another real key is to try and get down to a little bit more practical level. I think one of the key issues that you as risk managers face out there is how can you boil things down, how can you really explain the Interest Rate Risk exposure and the other risk exposures to senior management and especially the Board of Directors. I think that's a real challenge. I know that we recognize that challenge, but that is an area where bankers really need to focus and provide reasonably good clear, articulation of the exposures that the institution is taking to their Board of Directors so they can understand it and they can take action to it.

One thing that Howard Atkins also pointed out, which I thought was very useful, and that is that he made the point that when Wells is running their Interest Rate Risk scenarios they are also running static scenarios. That's one of the key messages that came out of this particular advisory. That running static scenarios along with your dynamic scenarios really allows the risk manager, ALCO and the Board of Directors to really identify what are the impacts of all of those assumptions that Walter was talking about before. If there is one element with regard to Interest Rate Risk management in the advisory that I think is important it's the inclusion of static assessments or at least some assessment of the impact of the assumptions -- the impact that your assumptions have on your risk measures. I will stop there.

>>KERRI CORN
I think we are all hearing the same thing. I made several notes from what the speakers had to say as well today. I guess a take away that has not been mentioned already and it's being captured by everybody, but I'll encapsulate it this way, is, since '96, technology has improved greatly improved, as you all know, the different modeling that you do and different models that are available and the various vendors that are offering new services now, they are greatly more than there were in 1996. The computer power that you have to actually get behind some -- the Bloomberg that is out there -- the various ways to get behind your securities portfolio with better and better analytics all the time. That has changed over the last 15 or 20 years. So you have all of that available to you now.

So with the complexities you have in your balance sheet take advantage of the various options and services you have to really get behind what you have. I think that's what we heard from everybody. You really need to understand what you are holding on your balance sheet and Interest Rate Risk management we can lay out the principles and the policies that apply to the entire industry, but it is really up to each of you to understand and help your board to understand for you specifically what is your business profile, what is your strategy, where are you located, what is your key market. Understand your bank and therefore what do you really need to better understand and get a handle on.

Where do I have concentrations? Where do I have bubbles in my balance sheet that I need to get a better handle on?

If you can't do it with whatever you have in house, where do I go to get it. It's available. There are lots of services available. I think the message from here is we are expounding on what we said in '96 because of the additional complexities you now have in your balance sheet and the additional ways you probably have now available to you to measure it. So take advantage of that. There are plenty of ways to do that. It's not as expensive as it used to be because it continues to be upgraded. So take advantage of the models you do have. Don't stop at whatever iteration you've been using for the last ten years. There's probably another place you can go with that same vendor. Ask them about that. They are offering all kinds of services for various pieces of your balance sheet. So go beyond what you think is okay after what we just heard.

The structural and the cyclical challenges ahead of us, look at what you can do with what you have that you have not thought about before. And I would reiterate what Jim said, if you need help in explaining to your boards and I grew up in the South, as you can tell, examining banks, the smaller banks that are now big CRE problems for the most part down in Georgia and Florida, but I've been in small banks and large banks and all the banks, and you really need to get behind what is going on in your balance sheet and be able to explain it well to your board. If you have difficulties and I've been in many board meetings and I can tell the board members do not really understand what I, as an examiner, am trying to convey to them. So if you need help with that, there are a lot of different reports that are out from this market disruption that do a really good job of explaining what happened during this period. I would really encourage you to go on our various web sites. We have access to a lot of those different reports. I know that they probably apply primarily to the largest banks, but the principles and the findings and lessons learned, they apply to all of us. So really I would advise you to go look at some of those papers. They really do a good job explaining what happened and why and that might be something you could actually, get down to something small you could actually share with your board to help bring them along. So my take aways are many I guess. So we're more complex, the services available to you are available to you to get behind what's on your balance sheet and there are also lots of reports and help available to better explain it to your board.

>>MALE SPEAKER
Great. Jim you touched on the issue of the silos between credit and interest rate funds management which is a good point. I was curious if there are any other particular areas where perhaps the current state of Interest Rate Risk management has not kept pace with supervisory expectations to put it delicately? There were other areas that the panelists wanted to touch on where maybe improvement was necessary. Kerri did you have anything on stress testing and things like that?

>>KERRI CORN
Yeah, I think we probably all hit on that. I will recap that quickly. I was just jotting down notes from what the different gentlemen said today that talked about stress tests. Kevin made the comment that you need to match expertise with your limits. I thought that was actually a nice comment to make. Do you have the right expertise in your shops for whatever risk you are taking now? I guess it's a recalibrate as Kyle said yesterday and, it's to back up and say what do I have here as far as systems and people and do I have what I need in this environment with my current situation and if not, get it.

Jeffrey made the comment customers have all of the options. We all know that's true. Garry made the comment, you need to risk mitigate elegantly. I liked that. I'm not sure which processes do that the best. Prepay models don't always work. You have to add your gut feeling to what is going on. Walter made that comment. So all this says it is difficult from small to large -- this is a difficult time we are in so for stress testing and what we are saying in this issuance which is a little bit beyond as far as elaborating on what we said in 1996, is you really need to do what is right for your company. You need to understand the complexities of your company.

I think for a lot of banks, we were stuck on a 200 basis point shock and I think it's because in our last policy statement we had the example of a 200 basis point shock and that became the Gospel and banks all did that. I don't think most of you are doing that anymore but what we are asking now is you need to run those number scenarios that are appropriate for you. So you need to understand for your bank what you need to do to really get behind the risk you have. And it will vary from bank to bank but you should run scenarios to get behind all of the different risk that you might have, the options risk, the yield curve risk, the basis risk. You should run that probably as Tom said, most of our banks that we see at OCC are going out at least two years on their simulations and that seems to be the -- the well-managed companies are for the most part going out at least two years. Does that capture where your risk is or is it out further? Are there just certain pieces of your balance sheet you should model further? There are lots of ways to get to it, but the goal of our issuance is think beyond 1996. Think about where you are today and what you need to do to further your stress testing beyond just what you have been doing for the last ten or 12 years. Anything else?

>>MALE SPEAKER
Tom.

>>THOMAS DAY
I think that is a real good point and what Jim mentioned too with regard to banks operating in different silos, one of the things that I have noticed and I am sure everyone here has kind of noticed is the intersection if you will, of credit risk, Interest Rate Risk and liquidity risk and a lot of these balance sheet models that are available from vendors or in-house models that are built today with the computer technology that we have -- grid computing and other sorts of technology that's available, the ability to do very robust evaluations that consider things like credit risk alongside Interest Rate Risk is a real possibility. And I guess what I would touch on and it's nothing new, this concept of earnings simulation has been around and a lot of banks manage their short-term earnings and that's why they really enjoy looking at the output of earnings simulation models but a debate in the industry that has been around as long as Jim has has been around the topic of economic value of equity and I think I want to hit on that because I think when people bring up the term EVE it means -- it's kind of like asking someone to describe blue. You get different answers from everybody if you had to describe that. And if you ask someone what is EVE, it may mean something quite different to you then it does to me.

When I think of EVE I think of it in the context of trying to put real values, market values or proxy market values on instruments across your balance sheet. Both on the asset side and on the funding side. And I think a lot of EVE models that are implemented and the argument you always hear from the bankers is my board does not understand it and we don't manage to that nor would we ever manage to that. We manage to earnings.

I don't necessarily disagree with that in that I have been in banks myself and clearly the earnings forecast that we produce and the sensitivities of those forecasts are very important but so is valuation. And in the early 1990s after the S&L crisis, Congress passed FDICIA and there was a section in there, 305, the immediate focus of the regulators was what is my exposure to capital vis-a-via interest rate treatments. From a regulatory point of view it gets to the issue of solvency and you know, do we have an exposure here that will eat away at your capital base.

I think the computing power that we have now and the models we have now, activity that we have in the market now, you are able to create a base case scenario that reflects a good approximation of the market value of equity not just in that present value of all future cash flows. So you are actually using market observable prices or hypothetical prices, level three type estimations to put against assets and liabilities on your balance sheet. I don't think there is anything new in that.

The advisory statement emphasizes that sound practice is that banks compute EVE, but I think the reason why a lot of banks have found that a difficult thing to convey to the board is net present value of cash flows without calibration to market observable prices or yields in credit spreads can be misleading. I will just give you one example and then move on. There was an institution that we are very familiar with at OTS that in -- 12/07, they had a not insignificant book of some subprime loans. Over the course of 12/07 to the end of March 2008, the economic value of equity model showed the value of those subprime loans increasing. The price went from somewhere from let's say a handle of about 87 to about 95. I don't think there is anyone in this room that believes from 12/07 to March 08 the value of subprime assets went up. But this is a signal that was given because using the balance sheet model that they had it was very sensitive to movements in the Treasury curve not credit spreads. And by incorporating credit spreads into the model and what happened between December and March, it conveyed a really misleading signal to the board and the senior management whereas if they considered those changes in spreads, I think they would have seen that they had a real capital shortfall at this organization not just from the subprime book, but from the pay option arm book that they were also having to model and in modeling in an incorrect fashion.

So from my point of view, I think the guidance and advisory that we put out and given the advances in technology and the compute horsepower that Kerri mentioned, the expectation is still sound practice banks, not best practice, just sound practice banks continue to look at economic value of equity measures to try to size that risk to capital. And I think it has been re-emphasized in good measure with the new advisory statement.

>>MALE SPEAKER
Good example. Good example. It seems one of the toughest things for regulators and bankers to grapple with over the years has been coming up with decent deposit decay assumptions. With the increase in Internet funding, higher yielding rates it's almost hard to imagine what is core anymore. What advice can you give the audience as to how they should go about ensuring their non-maturity deposit assumptions are reasonable and supportable? George, any thoughts?

>>GEORGE FRENCH
I guess the only thing I would say is that especially based on some of the comments of the panel this morning, and some of what we expect banks to do, you have to be monitoring behavior of your customers. If you are in the business of banking, you obviously know your customers, you know who they are and you can form some reasonable hypotheses about how the deposits are going to roll off under different rate scenarios. Obviously the presentation this morning from the community banker in Pennsylvania demonstrated that is a major focus of their strategizing about their cost of funds going forward. They devote resources to it and I think the examiners expect your assumptions to be well supported and you have looked at it.

>>MALE SPEAKER
Other thoughts on that? I know it's always an area of contention there.

>>MALE SPEAKER
I just might add real quick to your point, I think it was Jeff Tompkins had mentioned the capturing of optionality in the balance sheet and I think the example he gave was CDs where the depositor had a second chance to reset the rate. Someone mentioned that banks are typically sellers of a lot of options on both sides so interest rates go up, you lose, interest rates go down you lose. This is a short position straddle position that a lot of banks have. Capturing that optionality really gets to data quality and properly capturing that data so you can model those options. I think it's gotten a lot more difficult in the years. One has to at least guess about the behavior of customers and their next move and those behaviors may be quite different than the behaviors that we have seen in the past.

>>MALE SPEAKER
Great, great. What do you consider are some of the key assumptions used in banks interest rates risk models and what are your expectations for sensitivity testing of these assumptions? Kerri any thoughts on that?

>>KERRI CORN
I think we just talked about one -- how you look at your core deposits

>>MALE SPEAKER
-- maybe the asset side.

>>KERRI CORN
It's all about the optionality. You have to be able to understand what we have been talking about and the group has already talked about today. For sure, if I could touch back on the customer deposit a little bit. I think you've heard about it today and we have talked about it a lot, you know it, there's has been a huge deposit flow into the banks during a period of time. As you think about that going forward, what do you know about these deposits and how sticky are they going to be. It's going to be tricky to redo your assumptions on that I believe. I know at the OCC we were tracking those types of volumes and money market demand accounts have had a pretty large inflow into our banks. Overall, that's been the big growth category. So are those looked at as being core or not core? What are those? So just the different options you have on both sides of your balance sheet. How are you capturing those? I don't know if y'all want to talk about any other assets. How you look at different asset assumptions.

>>MALE SPEAKER
I mean I think -- well maybe -- this will be our last question. And then maybe we can get questions from the audience. But clearly a lot has been said on the importance of prepayment assumptions and we are probably preaching to the choir. One thing that I would like to point out, in any number of these areas with regard to assessing assumptions or the use of economic value of equity or other types of market value measures, or in developing limits or in doing reporting, over the years, unfortunately, there have been any number of times where we go into banks and various principles of risk management have been articulated. But the bank is really doing something else, they either have a limit or a policy or a plan on the shelf and they are doing it for compliance purposes pretty much. They are doing it just so they have something when the examiner comes in or they have this limit or what ever.

If you ever find yourself doing something for compliance purposes because I have to have it for the examiner to come in, you need to ask yourself why do I think this. Because the supervisory requirements and the principles that are articulated are not that far away from what is actually real required risk management. So it happens too many times where we walk in and people are doing things for compliance purposes. There's an underlying rationale for that and if you think you are doing something for compliance, it's not the supervisor's fault, you need to think through a little more carefully on what are the concepts that supervisors are looking to do.

For example, in the e-process Tom was just talking about and as Walter pointed out, Walter might not be doing formal e-models but what is he looking at? He is looking at his net interest income plus his OCI. There are too many institutions that just look at net interest income and hopefully the OCI may not get reported or fully assessed in ALCO. Maybe I will just leave it there.

>>MALE SPEAKER
That would be a good time. I think these are some good answers to some wonderful questions, if I might say. But anyway, I'm sure others in the audience, it's not everyday you get a chance to have all the regulators here on a panel so why don't we take some questions from the audience. There are microphones moving about here. There is a hand over here. That guy has a camera, we need a microphone.

>>MALE SPEAKER
All of you express so many concerns about what you are seeing. Are we to interpret this that the banks have real problems and real hurdles to overcome or is this a more selective problem that you are seeing?

>>MALE SPEAKER
I think there is. As I said at the beginning, probably over all it is not a systemic or a crisis type situation. I think the level of risk would probably be characterized as moderate and one that is increasing in the direction in the sense that we do see some institutions that from an off site perspective are taking on lengthening asset maturities and probably have shorter term liabilities. Now how much of a problem is that? A number of them probably have a lot of capital. We do address these things through the examination process. As we go through the banks and we take corrective action as needed we have publicly available cease and desist actions and we do mentioned the need for banks to strengthen their modeling and measurement of Interest Rate Risk, but it is an issue. I think as -- when we look this morning, it is an issue where we think we have some time to get ahead of it. We have addressed it proactively and we will continue to focus on it, but it is -- fortunately it is not a situation that has reached a severe or crisis level.

>>KERRI CORN
Yeah, I agree. We say exactly the same thing. At OCC we call it a moderate risk right now. And it is on the increase. I think, as the Chairman said, when we started off, this is just our chance to try and get ahead of the curve. So looking at where we are in this environment as well as the credit risk that banks have been dealing with and the earnings pressure they have already had, this is a chance to say Interest Rate Risk is around the corner so make sure your systems are ready to measure it appropriately and make sure your limits are set appropriately and your board understands what's going on. Really it's just to try to put that bug in your ear to get ready for Interest Rate Risk because the rates at some point -- we just heard many different views will be moving. But in the meantime make sure what you have had in place for years is right for you right now. But it's based where we are in this environment that we are saying pay attention like you have not before because of where we are with the rate cycle and with all

the pressures you've already had from what we just came out of -- or what we are entering the third year of depending on who you want to go with today.

>>MALE SPEAKER
My simple answer to that question is I get paid to look at the glass being half empty.

>>KERRI CORN
We are worriers.

>>MALE SPEAKER
Any other questions? There we go. We've got a blue shirt here. Why don't you jump up there.

>>MALE SPEAKER
Hi. Tom Wayne with Bank of Oak Ridge in Oak Ridge, North Carolina again. I figure I will try to get two for the price of one here so I will ask two questions so I don't have to get asked again. One speaker had mentioned that he thought that it would be good possibly to add more call reporting requirements to kind of better help you and I guess the markets assess the level of Interest Rate Risk an institution is taking. I'd like your observations on that. And then two, I think it's been interesting the dialogue you've had about trying to capture credit liquidity and sensitivity risk in a bank's Interest Rate Risk model. I am not aware that the model we use which is a pretty widely used model, I think they are moving toward capturing the sensitivity and liquidity but I have not found the credit piece yet. Do you think you will be putting leverage on these vendors to provide that to us? Those are kind of the two questions.

>>MALE SPEAKER
On the call reporting, I mean, it never hurts to have more data. I think the call report is 50 pages or thereabouts. I never saw a data element that I did not like. [laughing]
Before we add the schedules, we certainly have to think about the utility of the information that we collect. We have heard proposals to get more granularity and breaking down different types of deposits, Internet deposits, CDARS and the like so certainly we will consider those. I will defer to my colleagues on the other part of your question.

>>MALE SPEAKER
I will speak from the vendor perspective. I used to work for one of the larger vendor providers to the industry. A company called Bankware. What I would point out to a lot of users of these models is there is a lot of capabilities available within the models that may not be used or fully understood. A lot of the models allow for option adjusted spread type analysis, but it requires you to go out and get benchmark prices and calibrate to those prices which requires a hefty effort on getting that external data in.

For example, there maybe circumstances like we've run across recently where there was no bid in the market. So you know, you can't really go out and get those prices and so you have to make that price up perhaps. But, I will use one other example that is not necessarily related to valuation. But even in the context of net interest income simulation, a bank that I worked for at one point kept reporting that we are asset sensitive, we are asset sensitive, and this was in 2004 and very excited about rates rising because it was going to expand our net interest margin and everyone was expecting that to be the case.

And then rates started rising and low and behold, our net interest margin was not expanding and so the natural question from ALCO is you guys are modeling something wrong, what in the world is happening and this was back in 2004. If you remember, credit spreads and volatility both were compressing more and more and more. All of our new business assumptions essentially assumed that the run rate that we had, the spread on new business was going to be the same in these forward-looking forecasts. What we weren't modeling was those spreads were going to contract or compress. And I think a lot of these models actually have some of these capabilities, but it is a question of how active is the bank in exploring those capabilities with the vendor, does the vendor have a good steering group or user group community that is pushing them in the direction to incorporate some of these additional risk factors that the regulators have an expectation around. I would just say that the risk management group, the Balance Sheet Management Group of an organization should approach the issue as one that is looking at all of the assumptions and making sure they are doing proper sensitivity testing around those different assumptions that go into the output of the model.

>>MALE SPEAKER
And I would just add that and just really picking up on what Walter mentioned in an earlier presentation that is not -- perhaps not everything can be answered in a model. We should not expect everything to be answered in a model. And that's what risk managers get paid for. We get paid for the gut, the intuition, the ability to go off and do the spreadsheet over here that says what happens if I hit these default rates. So it requires a little bit. One thing I do get concerned over -- too much over dependence on models because people can end up over relying on them.

>>MALE SPEAKER
Overreliance on model sounds like a good point to end on Jim. I did want to thank the panel for the time and their great insights and also for the questions from the audience. I do hope this gives people some comfort for their upcoming examinations and if it doesn't, I hope it doesn't ruin your weekend. So thank you very much for your time. [Applause]

>>MALE SPEAKER
All right then, we have one more panel today. If you would just allow us a minute or two to transition, we will get these folks out.
>>MARKC STECKEL
All right. It looks like we're ready to get started. Let me introduce this last panel. This panel will be issues associated with "Haircutting Secured Liabilities in a Systemic Risk Failure". Following this panel, Chairman Bair will offer a few closing remarks. This panel will be moderated by Jim Wigand. Jim is a Deputy Director here at the FDIC where he's instrumental in work related to closing failing institutions and selling their assets. Jim benefits from experience during this crisis and the last. He has held a series of leadership positions at the FDIC, the RTC, and the FSLIC. Jim has a degree from the University of Chicago Graduate School of Business. Unfortunately he's become used to Friday being the busiest day of the week. So I'm very happy that he could take a few minutes to be with us today. Thanks.

>>JIM WIGAND
Thanks, Marc. Good afternoon everybody. This panel is intended to facilitate a debate about the Miller Moore amendment to the House Financial Stability Improvement Act of 2009. Now, many of you probably don't know much about the Miller Moore amendment. What you know might be misinformation. So hopefully we'll have an opportunity to clarify exactly what that amendment is about. But in summary, in its current form the amendment would require that during the resolution of a systemically important firm, certain secured creditors would have up to 10 percent of their secured claims treated as unsecured claims. Now this treatment would only apply to claims of less than 30 days that were secured by collateral other than Treasury or Government agency collateral.

Now the Miller Moore amendment has been subject, as I indicated earlier, to much misunderstanding and controversy and I think the second this amendment hit the floor there was a lot of blogging and commentary with respect to it. So I'm pleased to have on this panel Michael Krimminger who serves as the FDIC's deputy to the Chairman for policy and leads initiatives on a variety of banking and supervisory financial institution related issues. He co-chairs the Basel Committee on Banking Supervision Cross-border Bank Resolution Group and the Basel Committee and International Association of Deposit Insurers working group that developed core principles for effective deposit insurance systems. To Mike's left is Joshua Rosner who is a managing director at the independent research consulting firm Graham-Fisher & Company. Previously Josh was managing director of financial services research for Medley Global Advisors and executive vice president with CIBC World Markets. Josh has authored several papers on housing, structure securities and rating agencies. So with that, Mike, tell us about this amendment.

>>MICHAEL KRIMMINGER
Sure, I think probably the biggest understatement of the day is it created a little bit of controversy. I think what you have to do is go back, and I think most of us being regulators or bankers there's obviously been huge changes in the financial services industry over the last 25 years. Many of the functions that used to be performed most exclusively by banks are being performed by many other types of entities. One of the advantages of course that banks have, that we think the FDIC helps facilitate, obviously, is that they have a very firm reliance on insured deposits. They provide a good source of liquidity for funding operations.

Many of the other firms unfortunately that were -- I shouldn't say it that way -- many of the other firms that have engaged in remediation over the last 20, 25 years have gotten involved in many other activities -- proprietary trading and others, that don't have that source of stable liquidity. Oftentimes if you look at the balance sheet of a broker dealer, for example, compared to a bank, there's dramatic differences that's not a surprise to anyone in this room. A great deal or more have relied upon shorter term funding oftentimes secured funding through the repo market and others.

With banks of course, there's much less reliance upon that. A good solid bank foundation of funding would typically be a very healthy insured deposit base, a good core deposit base, less reliance on broker deposits, certainly some long term debt if your institution has been interested in issuing longer term debt. So there are dramatic differences in the balance sheets of the two firms.

I think what we have to do with looking at the Miller Moore amendment, and I'll get into a discussion about what it does and doesn't do because that's an important discussion here. If we look back to fall 2008 we have a fairly dramatic big understatement again a fairly dramatic situation. You’ve got dramatic de-risking and deleveraging in the system. You’ve got any type of entity that may be exposed to mortgage related assets and even other types of assets that aren't based upon some clearly valued type of collateral. There's a flight to ultimate quality, a flight to Treasuries, even a flight just to pure cash,

Even with Treasuries, there was a complete lack of confidence in any kind of volatile funding source or any kind of valuation fundamentals. The balance sheet of virtually all financial firms is under great stress. Liquidity management was based on -- liquidity management in many cases in the past for these firms -- have been based on a presumption of liquidity using the presumption of a functioning liquid market. And when you have a crisis such as we had in the fall of 2008 (and we’ve had other crises that weren’t quite as dramatic as the fall of 2008) where there's not a great deal of illiquidity in the market that type of basis for liquidity management simply disappears.

So in the crisis we saw there was reliance on funding using only short term secured liabilities by some of the firms and that completely dried up. You had firms who otherwise had a reasonably good balance sheet that simply couldn't fund themselves any more because the market for their ability to fund was completely gone. That leads to serious flaws in the overall system and creates additional systemic fragility that I think we do need to address. No. 1 it creates escalating margin calls on these firms so that as valuation of the collateral drops, additional liquidity strains are put on them.

You've essentially got a shutoff of the funding sources for firms. And during the process of demanding collateral, a rehedging and spreading of liquidity risks across the market, you begin to see more and more firms being brought into the concern about the valuation of the assets and their collateral. So you have more firms who would have been in stronger shape being put into the same bucket as those in weaker shape. So if we have this fundamental systemic fragility created by an overreliance on short term secured funding based on potentially volatile valued collateral then the real issue is should we do something about that? The idea behind Miller Moore is to take one attempt to try to do something about that. We have put a proposal out there. There are other options perhaps for addressing this issue but the proposal is very simple. It tries to focus in on the problems that were shown during the crisis. This is what it does and doesn't do.

For example, what it does as Jim mentioned would be to impose up to a 10 percent haircut only in the case where the United States or a systemic resolution fund would be exposed to loss. The haircut would required in the resolution of a firm if you have already eaten through all of the capital structure, all of the general creditor structure and would now be exposing the U.S. taxpayer to losses. It would only apply to secured funding that would have a term of 30 days or less and it would have to be secured by volatile collateral. In other words, if it's secured by Treasuries, we don't really have the same concern. Treasuries are usually pretty good as a source of collateral. So it -- if it were secured by things like CDOs, mortgage-backed securities or others then that would create a problem as it did in the past. That's not significant in this kind of proposal because it's such a short term anyway. What it doesn't do is it obviously doesn't apply to short term secured funding of a length of longer than 30 days. It does not apply to debt secured by U.S. government securities, as I mentioned before. It doesn't apply to securitization interest for example.

I had somebody ask me yesterday, well, does this apply to securities from securitization. Not at all because obviously that's not short term secured debt and it doesn't apply to federal home bank advances at all, so that's another issue that was raised at some point. I would just point out in closing about this that the goals of the amendment were really three-fold. As I said, it's designed to prevent loss to the Government Resolution Fund, or to the U.S. taxpayer. Second, it's designed to impose more market discipline back on the largest financial holding companies. I want to emphasize that point because I think Miller Moore has to be viewed within the context of a number of proposals that have been put forward on Capitol Hill designed to address systemic risk of the system. No. 1 of which is having heightened supervision and scrutiny for some of the larger films and having a Systemic Risk Council to help do that across the market. If you look at the rise of the problems we had in the past crisis you saw many non-banks engaging in a lot of development of subprime and Alt-A products that were securitized. Upwards of 50 percent of the market at times were being created by non-banks. That was something that was essentially unregulated effectively during the rise or the growth of the bubble. We need to have a Council to be able to look across all different types of markets, see where there might be risk rising and then make sure that someone is addressing that. No. 2, we need to have better consumer protection. Now, consumer protection obviously can be a very controversial issue as to where it goes and what kind of agency is created but let's face it, if you have very poor consumer protection and a lender is doing things that are gouging consumers or being unfair to consumers, in almost every case I've heard of or seen there're usually some other management difficulties at that firm. They are not properly managing their risk overall if they are willing to ignore the issues that might be created by trying to be fair to the customers in issuing mortgages. And then so we really need to get market discipline back in. And last but not least, there needs to be a resolution authority for all the firms that really essentially put this system at risk during the fall of 2008 and early 2009, to make sure that even the largest holding company and even broker-dealers and others can be closed if necessary in a way that will preserve continuity in the system, make sure that shareholders and creditors take losses and make sure that they are wound down, not bailed out.

Essentially, in short form, we need to end too big to fail. And then last the other purpose of this amendment was to help reduce reliance, as I said, on the highly volatile, short-term market financing backed by very market-sensitive collateral. If you help limit the reliance upon that type of collateral and that type of funding, the market will rebalance itself. It will find ways of getting funding. And it will then rebalance so that there's not such a reliance on short-term funding. Even during a crisis. Because that's going to create, I think, a different approach and a different focus by counterparties.

Part of this is designed to make sure that counterparties look at the risk being posed by the one they are doing business with. Not just look at the collateral. This is something I think as bankers we have always thought through. You don't just do collateral based lending, you look at the quality and the ability of someone to repay. That should apply also to financial firms that don't have that kind of solid base of liquidity provided by insured deposits. So with that I think -- I hopefully have given you some ideas as to why we propose this. What we -- what it does, what it doesn't do. And I think now we can start talking about it.

>>JAMES WIGAND
Alright, well Josh, what Mike was talking about seems pretty much like apple pie to me. So -- I imagine that there are some sour apples in there someplace.

>>JOSHUA ROSNER
Yeah, first of all, thank you for inviting me to participate. And I will say just because it in some sorts it feels like it's an ad-on, pin the tail on a donkey subject in an interest risk management conference, and actually a friend was asking me how it fits in. And the way I thought about it is: look, we have been in an extended period where much of the growth in our economy over the past 15 years has come from a combination of leverage and GNA expense management. And there's been very little top line growth in large swaths of our economy. And this really does fit in because I'm very concerned that at the point where we start seeing rates move large parts of our banks' customer base will become increasingly in need of moving shorter and shorter and shorter in on the curve. There's very little room left for GNA expense management and we know we're in the process of deleveraging that I expect to continue for quite a long period. So to that end I think this does fit in the broader context of an Interest Rate Risk management conference.

I agree with a lot of the more controversial things that the FDIC has put forward recently. I think a lot of them make wonderful sense to me. Even though there're a lot of detractors. Safe Harbor for securitizations make sense as the institution that has to resolve failed banks; it makes sense to me that you should be able to have a clear picture -- an apples to apples comparison in standards -- as to assets that you're taking and resolving and being able to look through it. That one makes sense.

This I do have some real problems with. Miller Moore strikes me to some degree as overreached and to some degree unnecessary, as far as its impact on liquidity. And to some degree it strikes me as in violation of the sort of first do no harm concept that medical professionals look at, which frankly to some degree is similar to what regulators are as proctologists. But regardless of whether or not one likes Miller Moore, it does seem that you're pushing for a belt, suspenders and Depends approach. And I sort of expect that the Senate would ultimately rather have a pants-down approach. But there's got to be something in between.

So first I'll talk about a little bit why I think it's a bad idea, and from there it makes sense to talk about some of the possible alternatives. First of all I think there's real reason to have concern that funding would become much more volatile and much more prone to runs in panic or when it seems that an institution was reaching its terminus. So typically and other banks don't have a lot of -- or especially non-bank firms that we're talking about don't have a lot of collateral to post at a time of concern. And so there wouldn't really be an ability to demand a lot more collateral at that time. It would seem to me to make more sense to consider specific haircuts based on the collateral that's offered.

I think it would also increase the procyclicality of security funding to large firms. It would increase the cost of funding of those large firms and in turn to consumers. And, it calls into question I think for me, as important as any other issue, the sanctity of the legal structure of secured collateral. So are there other ways to achieve some of the end results. And I think the end results make sense: more stable shorter term funding.

I would first of all point out we have a similar subject being discussed in the bank tax right now. Where a lot of the banks are obviously concerned that the way liabilities are being considered in the proposed bank tax, quote-unquote tax, there's a lot of concern that Treasuries really shouldn't be considered in that. And that -- if it's addressed, may provide a blueprint to address this issue, as well. Perhaps what you should consider doing is creating a schedule of haircuts that definitionally can be adjusted on a monthly basis not terrifically different than what the Fed does based on the collateral posted. So that would be a way of addressing Treasuries as a higher quality collateral than others.

I also think that to some degree there's a question as to whether this is not -- not by intention but by effect -- going to weaken the sense of urgency or intensity with which regulators and specifically examiners have to do their job. And I have some concern about that. At the end of the day, it makes me think of your qualified financial contract rule which the FDIC put in place last year which I think is probably one of the most significant rules put in place in the past decade. And that really suggests that you do, and should have not just for troubled institutions but all institutions, the ability to really look through and see what an institution is and how it looks at its counterparties and weighs its exposures at the counterparty level and the expansion of the QFC rule would also address this to some degree.

Third, it seems to me that if there's real concern here about the repo market or the shorter term funding, the FDIC can raise premiums. And that might be the more elegant approach or at least traditional approach to this issue.

So beyond that, I'll go back to considering creating a schedule. If we addressed or implemented the Volcker plan that, itself, would to some degree mitigate some of the need for this rule because we would end up more clearly with the non-depository financial institutions clearly outside of the tent. And

I think that in itself would create a new market discipline. And -- but lastly it seems to me that to some degree this approach could also be helped if we saw securities regulators demand -- because I would disagree with some of the view of what caused the runs, what caused the crisis. I think a lot of it was the lack of transparency. I think a lot of it was people didn't know where their counterparties exposures were and even in the rare cases where they were saying what is it you're holding, there were no standards as to the over-the-counter securities themselves that would allow anyone to assess what they actually were even if nominally they knew what they were. So to some degree I think if we had better transparency, if we had better standards the collateral could be crap and that's irrelevant if we know that it's crap. And I think that's a big piece of the crisis that isn't being addressed here. And I would hate for the belt, for the suspenders and for the Depends to actually be on the wrong person. I would hate for us to be in a place where we're getting a false sense of confidence that we're addressing the underlying problem when we're really actually not addressing it or acknowledging it, or seeing it and in fact penalizing others.

>>MALE SPEAKER
At the risk of going to a place I don't want to go because I don't have Depends on -- I want to go with some trepidation. One of the things you have to look at, is I think you raised some very good points. There clearly was a lack of transparency and there clearly is a need for dealing with the riskiness of different types of firms and what types of things should be engaged in by banks or some others. But I think I kind of view this as being a supplement to a number of other tactics or number of other strategies for addressing this issue.

Part of the problem, of course, is I don't think anyone has really put on the table until the Miller Moore Amendment was put on the table how to address this issue. Everyone recognizes…has agreed, I believe, the overreliance on short-term secured financing was a serious problem in the fall of 2008, particularly for the non-bank financial firms. So you had that combined with the fact that you had no way to actually close them without basically dumping all of their collateral in the market because I assume everybody knows here under the bankruptcy code you close one of these firms, you don't have the ability to create a bridge bank and provide continuity. The collateral can be -- or the derivatives can be terminated and netted out immediately. Collateral is dumped on the market. There's a huge rehedging problem, so on and so forth. So combined with that and the overreliance on short-term secured financing, we have a serious problem, but no one seems to be having really talked about how to address this problem until we started talking about what became the Miller Moore Amendment. So I think we need to get this issue on the table.

We need to begin to address this because I have a fear as we go forward there's a real danger that we think we've addressed some of the issues by doing a couple of things. And not have actually addressed the causes of the crisis or the problems that can come up. People always say, well you have to be careful you're not just solving for the last crisis. I think you have to be equally or even more careful you are actually solving for the last crisis. You have to make sure you're not creating risk for the next crisis. And I think some of the points you raised for example things like being subject to runs, I mean I do really think that if it's made clear there will be a haircut of up to 10 percent in the case that a firm is so crappy to use the word we used a couple of times up here, that you already have to eat through their shareholders, their subordinated and other types of debt, their general creditor claims before they would be at risk there will be a real incentive for creditors, secured or not (hopefully the nots have already been doing this) but of secured, particularly, to kind of look at the quality of the firm.

So I think the market will rebalance and kind of adjust to that. As far as a specific haircut or doing a schedule my fear of that is frankly having a schedule of what your haircuts on different types of collateral will be works fine when there's a stable valuation for the collateral. In a crisis collateral gets very unstable and valuation schedules don't mean anything. So I think doing that would simply be a problematic thing if you're trying to actually make sure that there's always something that's going to be there to put some risk on those who need to be looking at the firm.

And you mentioned for example concerns about creating procyclicality and increasing the cost of funding. I frankly had put both those in the category of increasing market discipline. You have to increase the cost of funding if you make somebody look at how bad somebody's balance sheet is. The market disciplines itself if it forces someone to the wall who has been engaging in very bad practices and is not making good decisions on the types of assets they are getting involved in or the types of risks they are running. That's called market discipline. Call it procyclical or not but it's called market discipline.

I think the balancing of the market will deal a little bit with the market procyclicality issue as well and you mentioned also the sanctity of the legal protections of secured collateral. I'm a lawyer by training so I bow down to the sanctity of a lot of things in the law but I think what we're talking about here is you do need to protect the value of collateral. You're talking about a fairly small haircut being put on securities. I mean on the collateral and frankly when you're dealing with volatile collateral, if you haven't been effective in doing your margin calls, you're going to be haircut anyway because the collateral is falling to the floor. That's what we saw a lot of times during the fall.

We're simply putting in place a system where you know you're exposed so you have less of an interest in over collateralizing to try to protect against the fall because it will be 10 percent of your claim, not 10 percent of the collateral value. So that if you over collateralized 120 percent or 130 percent you'll still be protected up to no less than 90 percent. And that's an important thing, it's no less than 90 percent, only depending on how crappy again was the balance sheet of the firm you're doing business with. So I think this is a fairly strong scalpel, I don't like to think of it as an axe, but a fairly strong tool, but it does protect the secured status but it makes note that there's a difference in different types of collateral. You've got to look at the collateral. I think this is something that's kind of been throughout the discussions on any kind of Interest Rate Risk or liquidity risk, you have to take a look at the collateral you're dealing with and if you're dealing with collateral that will be volatile in valuation then you have to take into consideration that when you're thinking of the cost of the funding.

>>MALE SPEAKER
Okay, now the reliance on, or the looking at, or the understanding of the collateral, if you told 90 percent of the people in this room in 2004 that residential real estate collateral was a risky asset class, they would have you go away. If you told them you were going to see national declines in home prices, which I was very concerned about during that period… the number of people who looked at me like I was crazy. That collateral would not have been priced any differently in that environment. So that is Part 1.

Part 2 is -- to that end, mayonnaise or mayonnaise. People act irrationally in times where there's a group think, where there's a breakdown in expectation as Mohamed was talking about earlier. These are -- this was really a paradigm shift. These were structural changes that were not recognized as such. This was part of a when models fail period of history. And I don't think that we would therefore necessarily price the right collateral correctly in that environment.

I will still argue when you're talking about schedules for paper that's 30 days or shorter, which is what we're talking about here, definitionally, if you believe that there would be any value in a systemic risk regulator, which I'm not sure I do, but if you do believe that there would be any value in a systemic risk regulator, that schedule would be updated every 30 days and reflect the macro risks that we would be considering. So I think the schedule actually would work. In terms of the increasing discipline that this would exert on market behavior, I'm not sure that I really buy it from the perspective that I think you would just be demanding the haircuts up front which would be reflected in the cost of funding of the shorter term paper up front. So I'm not sure that the markets actually would look through and build it in.

>>MALE SPEAKER
But isn't that kind of the same thing as the schedules? You're kind of demanding haircuts up front. You are now pricing into haircuts by doing 10 percent.

>>MALE SPEAKER
But you're doing it in a very clear, very specific, not hammer but scalpel way, which I think is the more appropriate way of doing it. Look I commend the fact that what Miller Moore has done is opened the subject to discussion, helped frankly evolve the discussion, and begun a necessary discussion of the dangers of short-term funding and the need to address short-term funding.

>>MALE SPEAKER
I would put it on the table for anyone and everyone certainly what I've told people when we've talked about this, if you don't like the Miller Moore approach then give me some alternatives. And again, I will go back to the point I made before, I think there's a value to belts and suspenders to hold up Depends or other types of garments. With belts and suspenders you have regulatory requirements that might say you can't rely upon more than X percentage of your funding from this source. That can be valuable. But having rules of the road that are set so that the market kind of rebalances and restructures around those goals is also a valuable tool.

I'm enough of a free market person to think that one of government's functions is to try to be clear, should be to be clear, and if you set clear rules of the road that are not unfair and not overly onerous, then the market can find a way to like function effectively, probably more efficiently if the rules are properly designed. You'll find that out fairly quickly, and then actually will rebalance and restructure around how do we deal with the fact that we could be exposed to some risk here. If I'm exposed to risk, what do I do? I then begin to look at how risky the counterparty is I'm dealing with. Maybe a hammer. I would say might be a few taps, but I think there's still protection for the kind of secured funding. It's just less so if you're relying upon certain types of more risky collateral.

>>JAMES WIGAND
I recognize with these two it's going to be difficult to get a word in edge-wise. And then I have one question for the two of you.

>>MALE SPEAKER
The point is why don't we just actually take an arrow and aim for the center of the bulls eye? Perhaps what we should do is have FDIC insurance premiums tied to duration in some measure. To limit short-term funding as a percentage of an institution's funding. That would be straight to the center of the target here and frankly might make a little bit more sense.

>>MALE SPEAKER

I've got one last word. One thing I will note too before everybody gets nervous this is focused on non-banks at this point certainly. It's focused on non-banks because we're talking about the resolution authority for those who don't have resolution by the FDIC. So I think in some ways, you know, having the assessments if you will for an ex-ante fund to create a resolution authority being assessed on riskier activities just like we do for risk-based assessments for deposit insurance makes perfect sense. The risk assessment process for an ex-ante fund should be focused on the risk posed by these non-bank firms. One of them I think would be the duration in what reliance they have upon different types of funding sources. I think again belts and suspenders are also oftentimes good.

>>JAMES WIGAND
Okay. Alright. So I have one question before we go to the audience. Because we are going to definitely take questions from the audience. But Josh, you had mentioned something which I had been thinking about with respect to this. I take a slightly different perspective on it. And that is yes, it would definitely cause a change in the repo market. But would not the change be going back to the way it was for years and years and years. In which basically collateral in the short term, the 30 day or less repo market would strictly be high grade Treasury securities. And so you would have a very stable, relatively stable form of collateral at the short end of the borrowing curve. And then the higher risk type of collateral would be basically used or utilized for longer term funding. And what would that affect -- I'm going to make the assumption that's kind of where the market would move. But what would the effect of that be and is it necessarily a negative one?

>>JOSHUA ROSNER
Well certainly the adjustments would be dramatic. I guess that I'm a little bit uncomfortable with that. Only in the sense that it would definitionally limit the availability of shorter term funding which would limit economic activity in some significant way. Are we willing to go back to that world? I don't know. I think that perhaps to properly haircut and not start throwing all collaterals out except Treasuries would be the right answer. There is this bigger concern that I have that it would actually exacerbate liquidity runs rather than anything else. I'm not sure that it would just totally wipe out the all but Treasury funding. I think that it would actually increase costs. I think it would increase the need for people to run. I don't think we can go back to that prior world where the repo market was just a Treasury market.

>>MALE SPEAKER
But wouldn't you end up creating a world in which you would need to as a non-bank particularly as a broker-dealer or someone -- you would need to maintain pools of Treasuries so you can fund yourself in the short term if a crisis came about. And also I would just throw out the point you made about various haircut schedules effectively we got a max schedule by having the 10 percent limit. You got a potential haircut you're going to be imposing on those that are -- [overlapping speakers].

>>MALE SPEAKER
But on the other side of that -- but on the other side that limit [indiscernible] should be inadequate.

>>JAMES WIGAND
All right, we are having a very robust discussion here, but we are going to have to allow a few minutes for the audience to ask questions. So thank you, Josh and Mike. And actually you can see we can really be engaged in this discussion for quite some time. It is a very interesting issue. And you know one particularly in the context of an interest rate conference, I mean just the thinking of the change in demand for Treasury securities and the impact that might have at different ends of the Treasury curve is kind of interesting by itself. But in any event, why don't we take some questions from the audience.

Gentleman over here.

>>MALE SPEAKER
Mark Gold, Ragemark. When Mr. Krimminger began his presentation, he raised a concern about broad non-bank institutions performing bank-like functions. And it is a very big topic. But he began his discussion by saying the Miller Moore Amendment speaks very narrowly. So I would focus very narrowly as I have understood his words. And as I reflected on what has been said, it seems to me, and perhaps I've completely misunderstood this, it seems to me that the proposal is not a belt and suspender, it's a suicide vest. If the problem here -- let's -- first of all, let's speak directly about what we're talking about. These are large broker-dealers that are systemically important…a set of institutions that no longer exist. They no longer exist because we found in the crisis they didn't work. They needed that short-term -- that reliance -- that bank like function of borrowing short and lending long needed to be performed by banks that had all of the support structures necessary to sustain that kind of activity. But if we are going to split again the function of investment banking and commercial banking, and re-establish large broker-dealers to perform the businesses they used to perform and they are going to have to fund, if they should get in trouble for either idiosyncratic or systemic reasons such as say Salmon Brothers did in the '90s, they are going to have to find some way to finance themselves in moving from an unsecured to a secured basis. And I'll tell you an entity that's in the business of providing short-term secured funds is not interested in protecting 90 percent of its principal. It is interested in protecting all of its principal. And it will not lend on any other basis. So then what this proposal would do is cut off the opportunity to borrow from people who are willing to lend on sensible terms. Terms that regulators would want them to lend to. It will cut off that opportunity to borrow funds at the very time that it needs that. And to me, that seems -- I don't know -- I don't see how anyone could understand this as a belt and suspenders. I might be missing something. But I just don't understand how anyone could see this as something supportive of an institution in trouble. It seems to me that it makes much more sense that we retain the flexibility of funding mechanisms if an institution is systematically important.

>>MALE SPEAKER
Well I think we're trying to respond again to situations where you have -- you had you broker-dealers who failed liquidity-wise, let's put it that way, based on the fact they were relying upon this kind of funding mechanism. We certainly again the Miller Moore Amendment would not impact at all their ability to rely upon short-term overnight repos, relying upon Treasuries or other kinds of government securities. It would simply say for the kind of collateral that led to the death spiral of some, the market told them we are not going to lend to you because they were concerned about the firm.

There was no Miller Moore Amendment in place at that time. The market was already shutting them down. What we are simply saying is you need to kind of look at that reality and if you're looking at the reality, how are you going to react to it. You shouldn't go back to the same -- you shouldn’t put the suicide vest back on again and try to rely upon the same kind of funding. There's no question that you could -- you're definitely reducing the desirability of funding based upon this kind of volatile collateral. But that problem has already been demonstrated. So I think you really have a situation where the market and the funding sources and how these firms fund themselves will begin to change in a very dramatic way and rebalance away from using this as their liquidity management tool.

I mean to be honest with you, when several firms were -- when Lehman Brothers went into bankruptcy there was testimony in the Senate right after that by the chairman of the SEC at the time -- and he testified at the time Lehman filed bankruptcy it met all of the capital liquidity requirements. Well that seems to me to suggest that certainly liquidity requirements, putting aside capital requirements, but liquidity requirements that allowed them to fund themselves in the way they structured themselves were probably not adequate. So we need to look at how the liquidity requirements should be changed and this would be one way to change what they rely upon.

>>JAMES WIGAND
Any other questions? Okay. Well, I would like to thank the panelists.

>>MALE SPEAKER
Alright thank you very much. That was a good discussion if you know the topic. Anyway, we're quickly coming to a close here. That was our last panel. I think we'll finish out by offering Chairman Bair the opportunity to make some closing remarks.

>>CHAIRMAN SHEILA BAIR
Well, thank you all for coming. I think this is an extremely helpful conference. We're all looking for take-aways. I've got a lot of take-aways going through my mind. I know I've learned a lot today. But I think it's clear there's widespread consensus the risk is there. And the timing and the severity is uncertain. There are various different views about when this will happen. It could be 2010. It could be a paradigm shift. It could be very severe. Or it could be incremental.

I think it was helpful for Larry Meyer to remind us that this really is perhaps less about the Fed because they certainly do have a lot of tools at their disposal as to when the easing starts, and to do it in an orderly way, but there's also the deficit spending and what kind of an impact that would have. And as Larry pointed out that could have an even more profound impact longer term. So maybe it's a good thing we're creating more demand with Treasuries, with the Miller Moore, I don't know --.

But I do think the good news is that we heard from both large banks and small that there are a lot of tools available now. We heard from regulators in terms of what we'll be looking at, what our examiners will be looking for with institutions. And so they have a variety of tools available. And now is the time to be analyzing their balance sheets and exploring a wide variety of stress tested areas to make sure they are prepared. Don Kohn reminded us that -- borrowing short and lending long is a very dangerous business strategy and the temptation for some might be to make money that way now to help make up for some of the credit losses, but don't do it. And that's certainly something that we will be frowning on and looking for, but I think most are not and they are doing a good job trying to manage this risk in a proactive way.

So I'm glad we're all looking around the first corner, maybe we need to be looking around the second corner too in terms of the dealing with risk, but it is manageable. And so thank you very much for coming and participating. Wonderful speakers. Thanks all again to you and to the staff. And be well this weekend. Thank you.