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CAN THE FINANCIAL SECTOR PROMOTE GROWTH AND STABILITY?

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Introduction:

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Keynote:

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THE FINANCIAL SECTOR: HOW HAS IT CHANGED?

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THE VIEW FROM THE TRENCHES

Moderator:

DOUGLAS J. ELLIOTT
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Panelists:

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THE FUTURE OF THE U.S. FINANCIAL SECTOR

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P R O C E E D I N G S

MR. BAILY: So I'd like to welcome everybody to Brookings, to this event. We have a really terrific lineup of panelists, and we're looking forward to our keynote speaker. We are particularly pleased that all of the original participants, because this event was snowed out in, I can't remember if it was January or February, but, anyway, it was snowed out, and all of them agreed to return which is really fantastic.

I just want to emphasize that Brookings, which gets its funding from a variety of sources, prides itself on maintaining its independence, and I urge all the panelists to speak their minds without fear or favor. Today's topic is an important one, Improving the Stability of the Financial Sector has been a top priority, appropriately so. But slow economic growth is also a huge concern. Real GDP in 2014 was just 8.1% its 2007 level, an annual growth rate of only about 1.1%.

There are several reasons why growth has been slow. Notably, the aging of the population and the workforce. But it must be a priority now to make the financial sector is working effectively to promote investment, innovation, and growth. So that is the task for today, to shed light on how the financial sector can promote both growth and stability.

Let me turn now to introduce our keynote speaker, Dick Berner. Dick is now the director of the Office of Financial Research. Prior to that, he served as counselor to the Secretary of the Treasury with a responsibility for standing up the OFR. Before joining the Treasury in April 2011 he was co-head of global economics at Morgan Stanley. He previously served chief economist at Mellon Bank, and a member of Mellon Senior Management Committee. He was director of the Washington D.C. office of Wharton Econometrics for several years, and he worked on the research staff on the Federal Reserve board in Washington.

Dick is a very distinguished forecaster. He won forecasting awards from Blue Chip, the Wall Street Journal, Market News, the National Association of Business Economists, and was awarded the 2007 William Butler award for excellence in business economics. So it's with great pleasure that I'd like to welcome Dick Berner as our keynote speaker. Welcome, Dick.

MR. BERNER: Good morning. It is a pleasure for me to be here, and I want to thank Martin Bailey and Doug Elliot for organizing this event, and for inviting me to join you, and, Martin, thank you for those kind words. I'm delighted that Martin and Doug persevered after this event, was snowed out back in March.

MR. BAILY: Oh, it was March, was it?

MR. BERNER: It was March. I think it was March 4th because the topic is clearly central to discussions about financial stability. I'll start by noting that the views I express here are solely my own and don't reflect those of the Department of the Treasury.

Well, you framed the topic and the question: Can the Financial System Promote Growth and Stability? My answer to that is a strong yes, but the answer depends on the resilience and proper governance of the financial system. As the financial crisis that we saw in 2007 through 2009 clearly demonstrated, when those critical ingredients are lacking shocks can be highly disruptive to growth and stability. Thanks to strong intervention, the financial system and the economy have recovered, but challenges to build and ensure resilience remain.

To this audience, the proposition that growth depends on a strong and stable financial system may now seem obvious. Yet, a decade ago many of you would not have asked whether the financial system could promote growth and stability. The consensus was that monetary policy had achieved price stability, low and stable inflation, and by reducing the inflation risk premium had unlocked the door to strong, sustainable economic growth.

To be sure, nagging questions lingering about financial booms and bond market conundrums, but 20 years of the great moderation fed a lack of caution. In my remarks this morning I'll try to look at these issues in great detail, and to answer three related questions. First, has the legacy of the crisis held back economic recovery? Second, are the trade-offs between stability and growth? And third, what have we done to assure financial stability? What is left to do, and what are the current threats?

The short answers to those questions are: yes, yes and no, a lot, a lot, and three that I'll highlight. In answering the last question I will, of course, what we at the Office of Financial Research are doing to promote financial stability. Regarding the first question, the slow healing of the financial system, and of its capacity to provide credit continues to be a headwind to growth.

Well, this is not news. The crisis impaired the availability of credit by forcing financial firms, other businesses, and households to deleverage, that is to reduce their debt. However, deleveraging also helped to advance U.S. financial healing. As evidence, household debt and debt service ratios have decline to or below sustainable levels, and some forms of credit are now growing along with the economy. But healing is incomplete. Mortgage credit availability is still constrained, and that's a factor behind our sub-par economic performance. And that's why central banks continue to deploy both conventional and unconventional monetary policies, and why real long term interest rates are at such low levels.

Are there trade-offs between stability and growth? In the short run some of the efforts to increase resilience may require adjustments. They could raise intermediation costs, and hence, be temporary headwinds to growth. But as we saw, sometimes those are compatible. In the spring and summer of 2009, incentives of the stress tests and TARP repayment requirements enabled banks to massively raise capital that stabilized the system and enabled banks to resume lending to support the recovery. But there may be some short-run trade-offs, should hardly be surprising, but I think the long run gains will be significant. Analogously, between 1979 and 1982 achieving price stability incurred significant short run economic costs. But, there too, the long run gains were considerable.

Yet, concerns are arising that regulation may perversely be contributing to more permanent adjustments that could impair market functioning. For example, several developments since the financial crisis have altered trading liquidity in securities' markets, and the ways investors redeem holdings to get cash. Some of these developments are by design. Regulations imposing tighter restrictions on bank leverage have increased the cost of securities' financing activities, even against low-risk securities such as Treasuries, and have reduced incentives to maintain those activities and the portfolios behind them.

Bank trading books require more capital and the Volker Rule requires banks and their affiliates to reframe from proprietary trading. However, regulations are far from the only factors at play. Some causes are cyclical such as changes in the supply of and demand for collateral, and changes in risk preferences. Other causes appear to be structural, such as changes in the investor base and securities markets, and in the development of new financial products. In addition, changes in market structure, such as the spread of high frequency trading and algorithmic trading to fixed income markets may be at work in the sharp movement in prices that we observe periodically.

Some traditional indicators, such as bid-ask spread suggest that reasonable market liquidity persists. But others do raise concerns. Since the crisis, market liquidity has become more fragmented in a few markets such as those for sovereign bonds in emerging markets, and in U.S. corporate bonds. Signs of bifurcation or fragmentation include the concentration of dealer inventories and high quality liquid assets, decline in trading turnover relative to market size, declines in the size of average trades, and increased settlement failures.

Perhaps more importantly, liquidity appears to become increasingly brittle, even in the worlds' largest bond markets. Although liquidity in these markets looks adequate during normal conditions, it seems to disappear abruptly during episodes of market stress, contributing to disorderly price changes. In some markets these episodes are occurring with great frequency. Examples include the mid-2013 sell-off in U.S. fixed income markets, the October 2014 dislocation in U.S. Treasuries and Futures markets. And the sharp (inaudible) in Euro Area government bonds in early May of this year.

None of these episodes disrupted U.S. financial stability, nor did we yet officially understand their causes. But together they highlight a potential weakness in markets that could amplify the impact of financial shocks. Other financial authorities have also indicated their concerns.

For example, FCC commissioner, Michael Piwowar, recently noted that growth of bond mutual funds and exchange traded funds, or ETFs, in recent years means that these funds now hold a much higher fraction of the available stock of relatively less liquid assets than they did before the financial crisis. He noted that their growth highlights the potential for a forced sale in the underlying markets if some event were to trigger large volumes of redemptions.

Research to identify causes is, clearly, a cottage industry. For example, in a recent OFR working paper our researchers explored patterns that connect daily liquidity conditions across a broad range of financial markets to financial conditions in the aggregate, both in normal times and under stress. This basic research represents a potential framework for monitoring market liquidity to extract signals to warn of impending disruptions.

What about long term trade-offs between stability and growth? Once again, I think the benefits of stability for growth will far outweigh any costs. In fact, financial stability is essential for sustainable growth. To quote former Fed chairman, Bernanke, "Even in, or perhaps especially in, stable and prosperous times, monetary policy makers and financial regulators should regard safeguarding financial stability to be of equal importance as, indeed, a necessary prerequisite for maintaining macroeconomic stability."

Let me now move to my final questions and my final answers. As a reminder, the questions were: What have we done to assure financial stability? What is left to do? And what are current threats to it? My answers were: a lot, a lot, and three I'll highlight. To elaborate on those answers I want to provide some context.

Out of the crisis came a widespread appreciation to different approach to policy making. Financial stability is now a widespread policy objective. Policy analysis is focused on assessing threats to financial stability, and policy makers are creating more tools to combat those threats. Developing what we call, the macro prudential tool kit. Marco prudential, as most of you know, is a fancy word that means we now look across the entire financial system, not just in individual institutions or markets, to assess and to mitigate threats to financial stability.

The crisis also exposed the need to improve the quality and scope of financial data to monitor activity across the financial system. Before the crisis, the data available to measure financial activity and exposures were too aggregated, too limited in scope, too out of date, or otherwise incomplete. No wonder regulators and policy makers poorly understood the extent of leverage, liquidity, and maturing transformation, the growth of non-bank activity, and exposures. The data failed to show them.

As you know, the Dodd-Frank act established the financial stability oversight council to develop and implement the tool kit, and created the Office of Financial Research to fill the gaps in data and analysis. The council is charged with assessing and monitoring threats to financial stability, developing remedies for those threats, and restoring market discipline by eliminating too big to fail. We, at the OFR, have a mission to help promote financial stability by collecting and improving the quality of financial data, and developing tools to evaluate risks to the financial system. Simply put, our work supports economic growth by helping to strengthen the financial infrastructure that growth requires.

Our new macro prudential tool kit needs to assess the fundamental sources of vulnerability, to be more forward looking, and to test the resilience of the financial system to a wide-range of events and incentives. Assuring financial stability is not about predicting, much less preventing, the next financial crisis. Rather, the tool kit must be aimed at improving financial system resilience to withstand the next crisis and assure system functionality under stress.

In the past five years, federal financial regulators have taken important steps to make the financial system more resilient. Since the crisis, officials have conceived and put in place banks' new capital requirements. Bank regulators also agreed on key components of liquidity regulation, and minimum requirements for firms' holding of liquid assets. In addition, two tools have dramatically changed the approach to increasing resilience.

The first is stress testing which helps calibrate resilience and less capital requirements. And the second is a new regime to resolve large, complex, and troubled financial institutions in an orderly way. These are consequential achievements that have made the banking system strong, but vulnerabilities are still present outside the banking perimeter and across the financial system. We need tools to address them, and to develop the tools we need to analyze and measure the vulnerabilities.

That's especially important as financial activity migrates to more opaque and potentially less resilient parts of the financial system. Here too, there is progress. Work is ongoing to assess risks and aspects of so called shadow banking, and to develop tools to limit them. For example, there's agreement that minimum floors on haircuts can strengthen secured, short-term, wholesale funding markets. New regulations are also in place to strengthen derivatives' markets and to make them more transparent.

Because these initiatives must cut across the financial system, close collaboration among U.S. financial regulators is critical for their success. The council on the OFR can each play important roles in such collaboration. Indeed, I would argue that the collaboration needs to be global, given that markets and institutions are themselves both global.

In the past five years we've improved our understanding of how the financial system functions, and our ability to measure financial activity and spot vulnerabilities. But we need to do more to understand how the financial system fails to function under stress, to spot vulnerabilities in the shadows, and to gather and standardize the data needed for our critical analysis, and policy makers' responses to identify threats. We know that financial innovation and the migration of financial activity create a moving target, so our goal to eliminate gaps in data and analysis will always elude us, but we'll continue to fill the most important ones.

At the OFR we're looking across the financial system to fill gaps in financial data and analysis. I'll give you a few examples of our work. First are the data initiatives with distinguish us from other macro prudential authorities. We're filling gaps in bilateral repo data in collaboration with the Federal Reserve. This project promises to improve our measurement and understanding of a key short-term funding market. A repurchase agreement or repo, as you know, is essentially a collateralized loan. When one party sells a security to another with an agreement to repurchase it later at an agreed price.

Of the $3.8 trillion estimated in funding that the U.S. market provides daily, about half are in bilateral transactions. But data on such repos are scant. Because the repo market remains vulnerable to runs and asset fire sales, obtaining more information about these transactions will fill an important data gap. The OFR is helping the Commodity Futures' Trading Commission and other regulators improve data quality and registered swap data repositories. These repositories are designed to be high quality, low cost data collection points for the data that are critical to understand exposures and connections across the financial system.

We in the CFTC are jointly working to enhance the quality, types, and formats of data collected. This work in inherently global, so we're each collaborating on it with our counterparts at the Bank of England, and the European Central Bank. The OFR is improving the quality of financial data by developing and promoting the use of data standards. We've led the initiative among governments in private industry worldwide to establish the global, legal entity identifier or LEI. A standard that's like a barcode for precisely and uniquely identifying parties to financial transactions.

If the LEI system had been in place in 2008 the industry, regulators, and policy makers would have been better able to trace the exposures and connections of Lehman Brothers and others across the financial system. The LEI initiative has become fully operational in just a few years, but ubiquity is required to realize its full benefits. So I, and others, have called for mandating its use for regulatory reporting.

In our research and analysis center we're developing new tools to asses and monitor vulnerabilities. For example, our financial stability monitor helps us assess risks in five functional areas: macroeconomic, market, credit, funding and liquidity, and contagion; instead of in institutions or in markets. By so doing, the monitor helps us look across the financial system and spot threats wherever they arise.

We're developing tools to assess risk in each of these five categories. For example, we're using so called, agent-based models, to assess contagion risks in financial networks. These models have been used to study the spread of epidemics and ways to mitigate them. Likewise, they hold great promise for understanding the dynamics of fire sales, the spillovers from the default of a major counterparty and central clearing counterparties, and other chains of complex events.

We supplement our financial stability analysis, the OFR, with market intelligence. In February we launched a financial markets' monitor that summarizes major developments and emerging trends in global capital markets. By making it publicly aimed to increase transparency, to enhance the availability of financial information, and to facilitate timely reactions by private industry to emerging risks, and thereby, to diffuse them.

Before I close this morning I want to elaborate on the response to the final hard question that I posed at the beginning of my remarks. What are the current threats to financial stability? In our 2014 annual report that we published in December we said that the U.S. financial system has continued to recover and strengthen. Compared with the period just before the financial crisis, threats to financial stability are moderate, but we noted that the relatively benign backdrop is no cause for complacency because several financial stability risks increased during the previous year.

Six months later that's still true. My remarks today have touched on two of those risks. The first is vulnerabilities associated with market liquidity, and the second is migration of financial activities towards opaque and less resilient corners of the financial system. A third major risk is due to excessive risk taking in some markets during the extended period of low interest rates and low volatility. None of these will surprise you. Someone asked me recently what risks keep me up at night? I worry most about the risk that I understand the least. What are our blind spots?

As the continuous evolution and innovation in the financial system caused a buildup of risks in a part of the system where we're not looking. It's the unknown risks that keep me up at night.

To sum up, the legacy of the financial crisis lingers and we're just emerging from its effects on economic performance. Growth and financial stability can not only coexist, in my view, but financial stability is a predicate for sustainable prosperity. We have done a lot to build a more resilient financial system, but we certainly have more to do. Ensuring financial stability will always be an ongoing challenge. I want to thank you for your attention. And I'm happy to take some questions.

MR. BAILY: I'm happy to see we pretty much have a full house now. We also have a number of people that will be watching on the web, so I think we had a, not surprisingly, a good audience to listen to you, Dick.

Where should I start? Okay. So is it your view that the regulatory framework that has been put in place is consistent with strong economic growth? We've only had, as I've said, very slow economic growth so far. Would you say that's partly because of the recovery of the financial system or at this point do you think there may be anything that's actually holding back growth from the financial side?

MR. BERNER: Well, as I've indicated, I think that, you know, we've had very slow growth, if any, in mortgage credit, and that's clearly a legacy of the financial crisis.

MR. BAILY: Do you think that's mostly because people can't get mortgages or because people are less willing to invest in houses since they saw house prices fall?

MR. BERNER: I think it's a combination of factors.

MR. BAILY: Combination.

MR. BERNER: Yup. I think that, clearly, credit availability is more restrained. It's more restrained in appropriate ways, but the pendulum has swung in the direction that has limited the availability of mortgage credit. But I think, also, as you point out, on the demand side, there are other factors involved, and I think people are hesitating to invest in houses and to take on mortgage finance.

MR. BAILY: The other area that's cited as being a potential source of slow growth is that there aren't a lot of smart up companies, small business has not led the way in the way it used to. Now, I think small business is recovering some, but that's been a very slow process. To what extent has the startup issue and the small business issue been related to financing? Or is it, again, because of lack of collateral or lack of demand?

MR. BERNER: You know, it's always hard to say what all the sources are. I think in this case, certainly during the crisis, the availability of credit to small businesses was constrained.

MR. BAILY: Yes.

MR. BERNER: Now that the banking industry has the capacity to extend loans, lending is growing at a brisk pace. If you look at -- we don't have great measures of small business credit, but all the measures that we have show that it is really starting to grow again. So that should not be a constraint. I think that constraints from elsewhere have also been prevalent. So industries that are related to housing, which has been growing slowly, are also not doing quite so well. And I think there's a caution out there that has limited growth.

MR. BAILY: Let me ask you a slightly broader question about the role of OFR. We do have the Federal Reserve which has a group of people that are now looking at financial stability, as well as the staff that's, obviously, concerned about monetary policy. We've got the FSOC. Tell us a bit about how you see the OFR, what it was originally intended to do, and the extent to which you've been able to do it. And I understand you've only had a few years to get this thing going, but to what extent do you see OFT as being the guard that's going to waive the warning flag? Are you just providing information to the FSOC? How do you -- give us your sense of what is the broad mandate of OFR, and how successful do you think you've been so far in achieving that?

MR. BERNER: That's a big question, but --

MR. BAILY: Yes, I realize.

MR. BERNER: -- I'll say two things. One is, you know, we had the luxury of not having to make policy. That gives us an objective position from which to collect the data, to do the analysis that we think needs doing, to fill in gaps where others either don't have the authority or where they haven't looked. So in looking across the whole financial system we can play a useful role for the council, and I think we are playing that role, as I tried to indicate.

Second, you know, the council itself, and we at the OFR are evolving, I think there new institutions.

MR. BAILY: Yeah.

MR. BERNER: Their members, obviously, consist of institutions that have been around for quite some time. I mean, in the case of the OCC more than 150 years.

MR. BAILY: Right.

MR. BERNER: In the case of the Federal Reserve, a full century just was celebrated a short while ago.

MR. BAILY: Right.

MR. BERNER: And getting all those institutions to work together, that's really the role of the council, and we help to also promote that by collaborating with other council member agencies and doing the things that we're doing. So I think we've made progress. We have a lot more to do.

I'll mention that I think we have a lot more to do in thinking about better ways to share data, better ways to fill the gaps in data and analysis. I think those things are starting to happen, but we need to do more work to make them happen.

MR. BAILY: Are you satisfied with the access to data that you've had?

MR. BERNER: I think we've -- you know, since I came to Washington I've learned that access to data is something that always involves the legal community, and appropriately so. We can't share data that are sensitive in any way without having appropriate safeguards. The process takes a while. I'd like to see the process move more quickly. I think it is starting to move more quickly now that we are starting to get the hang of it, if you will. But I think we need to make a lot more progress on that front.

MR. BAILY: Okay. Let me look at a different -- and I'm going to ask for questions in the audience in just a minute, so please get your questions read and make them questions and relatively short and, hopefully, to the point.

Let me ask you a bit about failure resolution, because I know you worked at Morgan Stanley for many years, and you know what a complicated bank looks like. There were, perhaps, some, you know, misapprehensions about how difficult or easy it would be to take down Lehman back in the crisis. Do you think we're sort of solving that probably of too big to fail, A? Do you think that it will be possible at some point to use the bankruptcy process to resolve large institutions? How do you see that failure resolution process playing out? Because that's, obviously, a big factor in financial stability if a company goes down and it creates a panic around it.

MR. BERNER: Well, making policy related to the resolution process is out of my lane.

MR. BAILY: Yes, I know.

MR. BERNER: But I will say --

MR. BAILY: But if you can comment on it.

MR. BERNER: I will say that I think that there has been progress, as I indicated. I think that the implementation of the policies that have been put in place, obviously, has yet to occur. But I think the regulators are working hard to try to make sure that they're taking steps to make that implementation work.

There are big issues across borders because of different laws and different approaches to that. Again, people are making progress on that. So what I would say is the framework is there, actually implementing the framework requires more work.

MR. BAILY: Yeah. Good answer, under your constraints. You mentioned three risk areas: liquidity, movement of activities into, what I'll call, the shadow sector, you used a different name, and the excessive risk associated with having low interest rates, and hence, the sort of reach for yield. Let me start you at the bottom of that.

The BIS, Bank for International Settlements, wrote a paper recently, fairly recently, suggesting that there might be excessive risks associated with keeping rates so low for so long. As you look at the financial sector, where would you look for those risks occurring? I don't think they're occurring in the regulated banks, but is it outside the banks, or where do you think that might be popping up? Where are you guys looking?

MR. BERNER: We have to look everywhere, Martin. I think that's really the basic point of our analysis. So, you know, we want to look at places where people wouldn't expect to look. Obviously, there is a lot of focus on risk taking and risk management in banks and other financial institutions. I think one of the great advances since the crisis is that risk management at financial institutions has been elevated to a level of importance that wasn't there previously. So that's a good thing.

As we look across the financial system, however, we always want to look in places where activity might be going and where the risks might be appearing, and might be transferred in a way that undermines financial stability. And so, if we look, for example, at -- we cited in our annual report three areas of where activity might be migrating outside the traditional venues.

One is, you know, looking at leverage lending. So there's been guidance from the regulators about leverage lending, 90% of the activity has been occurring over the past year outside the banking system. Now that's, you know, nothing wrong with that. Our capital markets provide an extraordinarily important role in intermediating and providing credit. The question is whether the risks are appropriately managed, and whether investors and issuers take account of those risks. Those are the kind of things we're looking at.

MR. BAILY: Now, I've heard some people say that if something migrates into the shadow sector, say a hedge fund, and a hedge fund takes risks and then goes down, so what? We don't have to worry about that so much, so maybe it's a good idea that some of these risks get driven into the shadow sector. Do you share that or do you think there's some risks of the system associated with institutions that are not part of the normal bank regulation structure?

MR. BERNER: Well, I'm glad you asked that because I think a lot of people are confused by what we mean by shadow banking. Shadow banking is credit intermediation that occurs with the creation of money-like liabilities. That is to say by funding with short-term, usually wholesale funding, and where there is no backstop, but where there probably is the need for a backstop because, as I indicated in my remarks, some short-term funding markets are subject to runs and assets fire sales. So those are vulnerabilities. It doesn't mean that it's inappropriate to do that, but if we don't take account of those vulnerabilities and make that part of the system more resilient then that's where the weakest link in the chain is going to be.

So broadly I would say, absolutely nothing wrong with having a financial system as long as that diversity goes along with resilience in each of its parts. Because shadow banks and other kinds of institutions are going to be connected back to the banking system. And it's that interconnectedness that we failed to take account of during the crisis that I think is still quite important.

MR. BAILY: All right. I'm hogging all the questions, so let me ask if there are questions from the audience. Would you make your questions short and to the point?

MR. CHECKA: Yes, thank you. Larry Checka. In your opinion, do you think we need to be, as a society, more concerned about regulation or slow growth in terms of what can happen? Because, quite frankly, the banks continue to not be as responsible as they should be all the time, and I'd rather see slow growth than what happened in '08. We lost about a good portion of our middle class. Thank you.

MR. BAILY: I'm interested in your answer to this one.

MR. BERNER: You won't be surprised to learn that my answer is that we need both. We need resilience and we need to have sustainable growth. I think the key to my remarks this morning is precisely that financial stability is a predicate for sustainable growth.

What we learned during the crisis is that we had stronger growth than we had prior to the crisis than we have right now, but ultimately it proved not to be sustainable because people we're cognizant of the risks that were being taken. So we need a resilient financial system, one that supports sustainable growth.

MR. BAILY: Next question, there's one there. Please identify yourself also.

MR. HELTMAN: Hello. John Heltman with American Banker. You mentioned that liquidity is a source of concern. I want to get an idea of how big of a source of concern it is for you. And without stating, necessarily, a policy preference, what would be the regulatory options available to address those concerns in a meaningful way?

MR. BERNER: I mention in my remarks that market liquidity or trading liquidity is a source of concern because it appears, in some markets, to have become more bifurcated, more fragmented, and that's something that in response to shocks we can see outside the price moves. We don't have all the answers for the causes of this decline in market liquidity. I think until we do have a better grasp of what some of those causes are it would be untoward to try to suggest remedies.

I think what I tried to point out in my remarks are that some of this is by design. In other words, we wanted to make sure that we had a certain amount of resilience in markets as well as in the institutions. And some of the steps that were taken in response to the crisis did just that. The question is, you know, what's the interaction of those things with other factors going on in the marketplace. I talked about algorithmic and high frequency trading and fixed income markets as potentially a source. Frankly, we need to do a lot more work in understanding what those causes are and how they interact before anyone can meaningfully suggest the right policy response.

MR. BAILY: Well, let me press you a little, Dick. I mean, don't you think that the Volker Rule often gets blamed for this lack of liquidity because financial institutions don't want a whole in inventory, as big an inventory of assets on their books because they may be violated the Volker Rule, so maybe that's a good thing or is a bad thing? But when you're saying we don't know why there's less liquidity, isn't that one of the reasons?

MR. BERNER: Well, as I said, Martin. By design some of the things that were put in place have reduced trading liquidity in markets. But I think the structure of markets is something that has changed, and so we need to look deeply at the structure of markets to understand what's going on there before we pin the blame on any particular cause.

MR. BAILY: Okay. Next question. There's one here, Doug. Doug Elliot from Brookings.

MR. ELLIOT: Thank you, Dick. I've been struggling to frame my question, but you talked a lot about need for better data which clearly there is a need for. There's also a need for better theory of finance because we don't have great, and certainly not unified, theories of how the financial system works. Can you talk a little bit about the OFR tries to deal with that situation, and how you deal with the theoretical gaps as you try to form some conclusions?

MR. BERNER: Thanks, Doug. You know, I'll leave it up to the finance profession to come up with theories of finance. There's always going to be competing theories. I think as people who use analysis to try to understand where the vulnerabilities in the financial system are, I think we need to understand how the financial system functions better. Not just theoretically, but as a practical matter.

So one of the things that we tried to do at the OFR is combine various groups to come together and discuss what's really going on. Practitioners in the marketplace who really understand how the business functions and how markets function. Thought leaders, whether they come from a place like Brookings or from academic institutions. Specialists in data and technology who understand, you know, how to satisfy the needs for data and technology. And policymakers who have had experience with dealing with financial crises and markets under stress.

It's the combination of those three groups, I think, or four groups that really helps us really arrive at practical answers to the kinds of questions that we're facing. That's something that we do in our advisory committee. A couple of the members of the committee are in this room, and we've certainly benefited from their wise counsel and hope to continue to do so.

MR. BAILY: Well, let me just press you on that for just a second. I mean, we know that there are some anomalies in the CAPM that don't seem to quite fit what people do.

MR. BERNER: Sure.

MR. BAILY: We know that Modigliani-Miller, even though it's basically a tautology, but it does not seem to represent the way equities and bonds are priced and essentially the equity premium seems out of line with any reasonable model. Those anomalies make it difficult, don't they? I mean, just on a practical level to make policy when you don't quite know what the ground is that you're standing on.

MR. BERNER: Well, they do but here's the basic point. You know, the theory is always just going to be a simplification of reality. And typically the theory in the past, at least, hasn't focused on how markets in the system functions under stress. System focuses on equilibrium. We're interested in, and we traffic in, disequilibrium. We traffic in multiple equilibria. I think the profession has started to grapple with those issues.

As a practical matter, we need to think about tools that we can develop in order to run ahead of that so we can understand better what's going on. I mentioned agent-based modeling.

MR. BAILY: Right.

MR. BERNER: If you talk to finance professionals they will say, well, agent-based modeling is too eristic for our tastes. It's something that really, you know, is not grounded sufficiently in theory, but it does a pretty good job of understanding how contagion can spread from what part of the financial system --

MR. BAILY: That's the thing you mentioned about --

MR. BERNER: -- to another.

MR. BAILY: -- like epidemics.

MR. BERNER: Exactly.

MR. BAILY: You can sort of see a spread of financial panic or a fire sales or something like that.

MR. BERNER: That's right. So we have a lot more to do to fill in the gaps in analysis. But you have to start filling it in by looking at real world problems, and that's what we're about.

MR. BAILY: So maybe you'll be checking on MERS as your latest threat to financial stability. Sorry about that. Yes, question back there.

MR. TRANG: Thank you. Hung Trang from the IAF. Thank you, Dick for your presentation. Several organizations, the most notable of which is BAS, has held the view that zero interest rate and blended form of liquidity are justifiable and necessary to support the economy after the crisis. Probably have lasted for too long and themselves have become a risk to financial stability. One, do you share that view? And second, to what extent monetary policy should be or ought to be part of the assessment of risk to financial stability?

MR. BERNER: Thanks for your question, Hung. I think, you know, it's always hard to judge. I have the luxury of not making policy. I think that, you know, our job is to spot vulnerabilities in the financial system wherever they arise, and to think about what the right tool for the job is in order to address those vulnerabilities. So we need to have a macro prudential tool kit, monetary policy is part of that tool kit broadly conceived, but there are others that we're developing that are aimed at addressing those vulnerabilities, and I think that's really where the work needs to continue and to be done.

MR. BAILY: I'd like to thank Dick for his speech and for his frank and insightful answers to those questions. And it's difficult, I know from experience, if you're in the government sometimes it's difficult to give those answers, but you've done just a terrific job and I'd like to thank you very much.

MR. BERNER: Thanks a lot.

MR. BAILY: So we have a great panel coming up and I'm going to hand it to Don Kohn to introduce that and moderate that.

MR. KOHN: Good morning. I'm Don Kohn in the economic studies program here at Brookings and I'm happy to welcome you to the first panel of the day.

The Financial Sector: How has it changed? I think there are a lot of questions we could address this morning, and hopefully our panelists will, and they don't I'll ask them questions about it. Has it changed enough? Is the financial sector resilient enough to maintain stability? Are there ways it has changed too much, gone too far, perhaps in a regulatory direction, because it impaired its ability to deliver key intermediation services as efficiently and effectively as possible? Are some kinds of changes more -- have they been more productive and effective than other kinds of changes? Can we identify ways in which we'd like to see some things undone, but further progress made in certain areas? What about this migration of activity that Dick was talking about? What are our thoughts on that?

So we have a terrific panel to address these questions. You have their biographies in front of you. Just briefly, Rodgin Cohen is the senior chairman at Sullivan & Cromwell. Everybody's go to guy for legal advice in the banking sector and I think, importantly, because he has a very acute ability to see things from the regulators' side as well as from the bank side and to find mutually agreeable ways of getting through to accomplish everybody's objectives.

Peter Fisher was my colleague in the Federal Reserve for many years when he was in the New York Fed. He's been in the U.S. Treasury. He's seen life from both sides. He's been at BlackRock, and now he's at Dartmouth, at Tuck, looking at life from above, so completely objective. Aaron Klein is the director of Financial Regulatory Reform Initiative at the Bipartisan Policy Center and Aaron, often working with Martin, has been very, very active in trying to identify these regulatory issues and how things could change.

So we have a terrific panel. Each panelist, we'll go in that alphabetical order, each panelist will have ten minutes, and then we'll gather on the stage and see what questions we can come up with. So, Rodgin, you want to start?

MR. COHEN: Thank you, Don, and good morning. It's really my honor to be here with you today, and particularly with my distinguished co-panelists.

Now, notwithstanding claims to the contrary, the financial industry has changed significantly since the financial crisis, but change is not inherently a value judgment, and I'm going to divide the industry changes since 2008 into the good, the bad, and the ugly.

The good changes relate to a banking industry that is considerably stronger in financial terms. This begins with a sharp improvement in high quality capital ratios with an increase of particular magnitude at the largest banks. The most recent capital proposal for U.S. G-SIBs is between two and three times the requirements prior to the crisis. Leverage capital requirements have increased at an equivalent pace. Moreover, these formal requirements understate the practical regulatory requirements in two important respects. First, because of regulatory and reputational reasons no bank can afford to fall below its capital requirement, even if a portion is stated to be a buffer. Therefore, the actual practical capital requirement is likely to be 75 to 100 basis points higher than formal requirements.

Second, most banks believe that the most restrictive capital requirement is likely to be derived from the CCAR process. Because of the both, the stated approach and the opaqueness of CCAR are, again, effectively required to maintain capital well above stated regulatory requirements. It's not just the amount of capital, but the capital planning process that is approved under the watchful eye of the Fed modeling an overall analysis are much more rigorous. A similar phenomenon has occurred with respect to liquidity. The current and proposed formal liquidity requirements are sharply higher than the prior informal supervisory guidance. And again, there's been a sharp improvement in liquidity management.

Finally, I actually believe banks are less risky because they are more focused on risk management and compliance, institutions are now, perhaps belatedly, devoting some of their best and brightest to these two areas. There is a common understanding that both are appropriately viewed as prevention of loss rather than simply incurrence of cost functions.

Now, the bad change relates to the overall impact of the multiple regulatory changes on industry profitability, particularly in terms of return on equity, which is the metric perhaps most important for investors. Compliance costs have soared, liquidity requirements reduce the amount of higher earning assets. These earnings pressures are compounded by the unparalleled, prolonged low interest rate environment since 2008 which has sharply reduced net interest income throughout the entire industry. Just as the steep decline in the price of oil produced winners: airlines, auto manufactures, and consumers, and losers: oil companies and vendors. So too, the low interest rate environment has produced winners and losers. The winners are borrowers, both commercial and consumer, and the losers are the lenders, particularly the banks.

Now, this combination of lower profitability and specific regulatory requirements have caused the migration of large squalls of bank business to less regulated, or even unregulated, non-banks, which Dick was referring to. There are multiple examples: mortgage servicing, consumer lending, leverage lending, and subprime lending. And there is now a direct threat to the core of banking, Silicon Valley's efforts to take over payments. A, perhaps, even more troubling migration is that of talented individuals from banks to non-banks. This may be due, not so much to higher compensation opportunities, as avoidance of the soaring bank enforcement risk. This overall situation raises a number of troubling policy questions and requires a thorough government analysis.

Now the ugly. That involves the reduction of the government's ability to respond to a future financial crisis. We actually got off to a positive start. The inexplicably reviled, Title II of Dodd-Frank created a thoughtful and balance framework for resolving systemically significant financial institutions. It will soon be supplemented by TLAC requirements and single point of entry. But the effectiveness of Title II remains jeopardized by the absence of formal, ideally binding, international agreement on resolution.

In numerous other respects, however, the government's response capacity has been degraded. I'll just catalogue a few of these developments. First, the Federal Reserve's capacity to provide investment, and even liquidity, has been restricted by the constriction of Section 13.3. And astonishingly, or perhaps not in the current political environment, there are proposals to reverse the basic tenants of central banking and limit even further the Federal Reserve's role as a lender of last resort.

Second, in an astonishing example of short-sightedness, the government has penalized institutions for the sins of companies that were acquired in emergency transactions with the encouragement, and even the instigation, of the government. Third, as new requirements were imposed on acquisitions by large financial institutions, the standard exemptions for emergency acquisitions were not always incorporated. Fourth, a combination of the new capital and liquidity requirements could pro-cyclically reduce the availability of credit at a time of financial weakness or even uncertainty. And fifth, a combination of the Volker Rule and capital requirements could reduce, as Dick previously indicated, liquidity in a number of fixed income assets classes.

Compounding these five issues there seems to be little, if any, comprehensive research and analysis of how the plethora of new requirements will, taken as a whole, affect the markets and the government's ability to respond in the event of disruption. The one silver lining in all of this is that almost all these problems are fixable if there is the will, as well as the willingness to disregard, and even call out, the counterfactual myths that continue to persist about the financial crisis. We should not be placed in a position where are financial institutions are considerably better to deal with a financial crisis, but our government is not.

I cannot resist closing with a mention of one other ugly change, and this is an apparent shift in the paradigm for the relationship between the regulators and the regulated from one of cooperation, collaboration, and two-way transparency to one of tension, suspension, distance and opaqueness. Thank you.

MR. FISHER: Good morning. Thank you. It's a challenge to come after Rodg. I've had to do that before, so I'm used to it. Let me make a few points, after Rodg's terrific remarks.

First, let me say, I'm going to take a more conceptual approach to the topic. Most risk management failures are not computational, they are conceptual. This applies both to institutions and to the financial system as a whole. If we think of the financial sector as a device we use to pump up credit in order to pump up demand then, I'm afraid, we're stuck in a dilemma in which we cannot promote both growth and stability at the same time.

But let me first come to two threshold problems. First, I am intrigued to see the outbreak of sympathy for the plight of the poor bond trader by central bankers and policymakers the world over. The deep empathy and concern for how hard it must be to execute transactions might have something to do with the realistic fear that prices might go down. After almost a decade of pumping up asset prices, worry the central bankers should. Credit Suisse tells us that global household wealth has doubled, so far, in this century. The World Bank tells us that global GDP has doubled, so far, in this century. To double in a mere 15 years you must compound at approximately 4.73%.

I don't believe there's anyone here today, or anyone I'm aware of, who thinks that that productivity of the human species has been compounding at that rate for the last 15 years. Thus, we have a certain gap. If productivity were expanding at 2% then we would have added about 35% to the stock of productive assets. Instead, we have doubled it. So I'll simply observe that the prices of financial assets seem to be unencumbered by any particular relationship to the productive potential of the human species. So worry about market liquidity you might.

Secondly, we have a threshold problem, and I anticipated Rodg's remarks. Let me just say in my own words, that we will not have a coherent discussion of this subject so long as we maintain the fiction that the authorities can limit a thing called risk, impose costs to contain the think called risk, without a materiality or cost-benefit analysis, insist on knowing the right level of capital, all without regulating the return to capital. That, simply, is not a coherent position and the dialogue will not be an effective way. I'd much rather we have a candid conversation about the return to financial capital than that we ignore the subject.

But on a more going forward basis, let me say I think that we have this conceptual flaw in how we think about the role of the financial sector in promoting growth. I think of the economy as having three, not two, circulatory systems. First, we have the producers and consumers of goods and services. Secondly, we have the sources and uses of funds. Third, we have the sources and absorbers of volatility. Now, if you were simply trapped in a world where you only think of the first two circulatory systems, and then you think of financial intermediaries as the agents that stand between the sources and uses of funds, and in order to promote consumption and investment in the first circulatory system you pump up the size of the intermediaries in order to stimulate consumption and investment. Then I'm afraid you're trapped, more or less, in this dilemma in which you promote growth by expending a thing we call the financial sector, and see how far it can go until you decide to stop.

Now, one dilemma we have is, another way of saying this, is how can we expect the financial sector to promote growth and stability at the same time if our central bank declines to articulate how it will do so. Just about 11 months ago we had the chair of the Federal Reserve speak at the IMF and say she was going to decline to do that, with interest rate policy, at least. Macro prudential policy is an interesting hypothesis, one which I would like to point out is unencumbered by any relationship to actual experience. A mere eight years ago we all would have identified one country on the planet who'd done the best job of implementing risk-based capital in order to have a profound macro prudential approach, and that would have been Spain, and we were all wrong.

So we all linger with the thought, the hopeful thought, that we can have a thing called risk-based capital which will provided a clinical and, sort of, auto-pilot approach to financial stability. If the financial sector wants to take more risk they have to hold more capital. It will all just take care of itself in a tidy mechanism. I think we've lost hope for that. I do think, though, if you add the third circulatory system to your conception of the financial sector, that is the sources and absorbers of volatility, and ask yourself, what balance sheets are well-placed to act as absorbers rather than magnifiers of volatility?

I'd like to point out that risk is an empty bag. The word risk doesn't help you very much. Risk is deviation from objection, and until you've decided what the objective a financial intermediary is serving you don't know how to measure its risk. And if you insist on having a single, one dimensional view of risk for all financial intermediaries you're going to miss the boat entirely. They all run different volatility mismatches. They all -- both driven by, and constrained by, volatility mismatches. That's how they make money. A financial intermediary will not make any money unless they run a certain volatility mismatch. And they will, inevitably, die if they run volatility mismatches that are too large or that cannot be contained.

There are, however, volatility mismatches that are sufficiently large. They will never be remedied by a thing called capital. It's not going to be in the kin of the great and the good gathered here together and in other places to get capital requirements up to the level that will let you run any volatility mismatch you want simply by adding capital. I think that's part of the failure of the risk-based capital regime at the conceptual level. But if we look inside the volatility mismatches they each run, if we ask different questions about what do we expect pension funds to do? What do we expect insurance companies to do? What do we want commercial banks to do?

We have a thoughtful conversation and dialogue and policy debate about what volatility mismatches do you want which kinds of intermediaries to run. I think then we will be moving toward a financial system that can promote growth and financial stability both. But as long as we're trapped, in what I call the first two circulatory systems, we ignore the volatility mismatch system and we just focus on producers and consumers of goods and services, and sources of uses of funds, and the authorities view the intermediaries as the things to be pumped up in order to stimulate demand then I'm afraid we're not going to be able to reconcile growth and stability through the financial sector. Thank you.

MR. KLEIN: If Peter had a hard job following Rodgin now I have a harder job following both folks. I'm Aaron Klein, director of the financial -- BPC's financial regulatory reform initiative. The slide I'm going to go through builds on the work that we've done which includes the wisdom of Martin Baily, our co-chair, and Peter and Rodgin who work with task forces and the initiative. And also a paper that Martin, myself, and Justin Scharden did forthcoming.

So if you think about an assessment of Dodd-Frank and some of the other exchanges that have been added on since the financial crisis we've kind of broken things down into a few different categories about financial stability and economic growth. I want to start with just a few words on what is financial stability?

The most stable financial system is one in which there's no lending. That's a tautology, right? The safest transportation system is the one in which people don't move. Neither of those outcomes is desirable. I actually quite enjoyed Dick Berner's view about talking about resiliency instead of stability, right. We want a system where people move, and they move quickly and efficiently, but safely. And if there's a problem, and one delay at LaGuardia airport, the whole nation isn't grounded for the day. So you want a system that is resilient, perhaps is a better goal, than stability, but I'm not going to fight a nomenclature battle at the moment.

We will step back and say there were a couple things that were done that were clear wins. That increased financial stability and promoted economic growth. There were things that were clear losses that both would promote instability and retard economic growth. Then there were some costly tradeoffs. Different people can have different perspectives on what value to place on stability and avoiding another financial crisis versus potentially limiting our ability to grow. There were many years in America where we had a speed limit of 55, people moved around more slowly. We've raised it to 65 and 70, doesn't seem to be much of a cost in safety. People move faster. Some people may want to go back or not.

One point on that analogy that came to me, by the way, we reduce the speed limit not for safety. The speed limit was put in place to deal with an oil embargo and improve fuel efficiency. Very different objectives. Sometimes the objective that was articulated at the time then becomes coopted in the future, and I think that's something worth thinking about in terms of finance.

Finally, I think there was some unfinished business as well as some things that are too soon to tell. So let me try to get to the main slide here. We try to group these things in four different concepts and start on a positive note. Let's talk about the clear wins. Increased capital, I think was a clear win. The financial system, banks especially, just had too little capital. We increased leverage ratios. We improved our risk-based capital models, put in stress testing, etcetera.

I do want to riff on one point Peter made about the over reliance on risk-based capital. Considering that about, kind of, the simple leverage ratio. I think part of the derivation of this actually comes from Moore's law. So the great advances in computing power have allowed us to model things that were here too far way too complicated. Think about, for a moment, trying to do Basel II with punch cards, right? Nobody would have proposed such a system. But just because you can do something doesn't mean that you should. Just because our computing technology and models have advanced, perhaps well beyond financial theory as discussed earlier, doesn't mean that you should be able to model it. In fact, I think as a society we've become too interested in data points and point estimates of risk and point estimates of capital, and haven't really appreciated confidence intervals, our own statistical uncertainty of what the data tell us.

And in that point, there's a little bit of a parallel to volatility, right? As long as you think you have it you don't realize that the gap and movement that you can experience. So we think maybe perhaps we've become a little -- hopefully the financial crisis will produce some amount of humility and our own ability to have confidence in what our computers can output if given the right numerical input.

Title II in the resolution process is one of the great wins in Dodd-Frank. It's also one of the most bipartisan parts of the bill. I wouldn't be doing my BPC job if I didn't remind folks that over, I think 92 senators, voted for Title II. I think the FDIC's done a very good job. I agree with Rodgin's point, they could put a little more binding clarity in international agreements would be helpful. Mandatory clearing and settlement, something else that we think makes the system both more stable, more resilient, and grow faster. And the creation of the CFPB. There is a clear nexus between financial stability and the implementation and the consumer protection in establishing one unified voice to speak for the consumer we think was a clear win.

Turn to a second for the costly tradeoffs. The Volcker Rule and the Lincoln Amendment we thought we looked at -- there's a cost. It is not a free lunch. Different people of different minds can agree whether these things were good and bad, but they're significant tradeoffs. We think Congress was wise in effectively appealing the Lincoln Amendment because the Volker Rule kind of gets at the same problem, and that seemed to be the route that folks wanted to go. So one of the concerns with Dodd-Frank was in the quest for financial stability lots of solutions were put in, often to address the same problem.

There was a moment when I was helping to negotiate the TARP, the Troubled Asset Relief Purchase Program, and there were three different ideas for how to oversee it, and the three members of Congress who had the three different ideas, we were under tremendous time pressure to get the bill done, looked at each other and said, "Well, I'll take yours if you take mine." And we ended up with three different overseers, and today TARP has an IG whose budget is larger than that of the office of which they oversee along with two other past overseers. So sometimes you can throw too much spaghetti at the wall and have too many solutions in there.

The third is the restrictions on crisis authority. We view this as a clear loss. Rodgin pointed out as much, and I'd echo that. It wasn't just the restrictions on 13.3, but also on the FDIC whose TLGP, temporary liquidity guarantee program, was one of the great tools of the financial crisis. It was very much unforeseen as a potential path to use that authority in ways that the folks who created it never thought so, but had a tremendous value in addressing the moment in instability.

I'm going flash ahead for a second, but if I told you that there was a government program that saved middle class jobs, promoted economic growth, promoted financial stability, and made a profit for the U.S. tax payer that sounds as close as a free lunch in policy as possible. But in reality, the programs that did that, the troubled asset relief program, the FDIC's TLGP program, and the Federal Reserves' bailouts under 13.3 of AIG and Bear Stearns all made money. They summed it $68 billion of profit for the tax payer and promoted financial stability. Yet, they seemed to not only be, to this day, politically unpopular, but there are desirers to continue to move in that wrong direction which we think would be very problematic.

Lastly, things that didn't go far enough. Regulatory consolidation. We still have too fragmented a regulatory system that we think could promoted instability, in fighting within regulators was one a potential source of the financial crisis, and also hindered our response. The creation of the FSOC was a step forward in promoting regulatory cooperation, but we think we ought to go further with some amount of consolidation. And some more empowering on the FSCO. It hasn't been quite put to the test, but there are ways in which if the FSOC identified problems it couldn't resolve them. The system still allows a certain amount of regulatory gridlock which would be problematic.

We have our own solutions. For example, if nine of the ten regulators think one of the regulators ought to propose a rule that Congress required them to write our system still allows that one regulatory to sit on that rule. Whether intentionally or because they can't reach consensus within their group. We think that's a problem. The Office of Financial Research -- Martin asked a question, I'll answer it. We think they ought to waive the alarm bell. They ought to waive the flag. Structurally the FSOC, the Treasury Secretary, and the Federal Reserve are just limited in their ability to call out for crisis by the very rules in which they encumber, and our system needs somebody who's empowered and has that authority and autonomy to do so.

There are a couple things that are too soon to tell. I'd include in that the regulation of insurance. We think -- we're always solving the last problem which came through the banking sector. Insurance, the traditional business of insurance was pretty solid through that process, but now we've put in a whole new regulatory regime. The Federal Reserve regulates a third -- 30% of the insurance industry.

So just to check, we asked in a non-scientific way 300 or so experts in terms of what was good, bad, and ugly, to use Rodgin's point of view, and I'd point out kind of the things we discussed: higher capital, resolution, TLAC, clearing all came out very net positive. Limited on the FED, and FDIC's emergency authority, and the Lincoln Amendment were negative. Lincoln's been repealed. Hopefully, going forward, we'll see Congress act to reverse their mistake on the Fed and FDIC emergency authority. Thank you very much.

MR. KOHN: Well, thank you all for very interesting and thought provoking remarks. Let's see if we can get a conversation started. Rodgin, I'll start with you.

I'd like to follow up on the bad part of your good, bad, and ugly. I think Aaron followed up on the ugly part very nicely, and I'll follow up with him on that. You were worried about cost and earnings and ROE in this new environment, so what would you do about it? Are there particular reg-, is there too much capital being required? And sort of a comment on this, in theory, if you've got more capital and you're less risky the requirement for ROE is lower, and banks have been selling equity, some banks anyhow, raising equity in markets. It's not as if they're shut out entirely, so a few more reflections on your ROE concerns.

MR. COHEN: Okay. And it's a very fair point, Don, I do think we are at the outer limits of where capital should be required, but I believe the markets are skeptical as to what more will be necessary. TLAC is a case and point. No one knows where those numbers will come out and, more importantly, no one knows what the formula will be in terms of what counts, what doesn't, how it is weighted. So ultimately, yes, I'll go back to -- I thought the excellent analogy which Aaron drew through transportation safety and facilitating transportation and capital.

Every increasing capital, ultimately, has to have an impact. And where the markets are worried that the regulators believe and the government believes that there is no restraint on the amount of capital that can be imposed that is a problem for investors. And I am not convinced that there is the tradeoff if banks are not able to earn 10% ROE, no matter how safe. Particularly, when they're sitting with dividend restrictions as a result of CCAR I think you risk losing huge areas of investors.

MR. KOHN: And you don't think we're on our way to resolving -- it's really -- partly, this is about uncertainty.

MR. COHEN: Right.

MR. KOHN: About what might be coming next, etcetera. And you -- that process is still evolving and evolving so much that it's not clear what's coming next?

MR. COHEN: I think that is fair, including what happens if you make an acquisition. Do you have another 50 basis points every time, if you're a GSIB, that you do a deal?

MR. FISHER: If I could just connect it to the thought I offered?

MR. KOHN: Please.

MR. FISHER: Which is the regulators, across the board, seem to have a difficulty applying either a materiality or a cost benefit analysis to all of their requirements. They want to be bulletproof against the next crisis, so they think if something looks risky they want either more capital against it or more staff hired to remediate. There isn't an apparent willingness to apply materiality or cost benefit or something that would let you make a judgment about the wisdom. I think that's what feeds the uncertainty in the capital markets that Rodg is referring to.

MR. KOHN: Do you think the regulators ought to be required to do a formal cost benefit analysis of any new regulation they put forward?

MR. FISHER: I think they're going to end up having to, and I wish they would just do it without Congress requiring it. I mean, I don't think Congress -- we might get around to Congress rewriting some of the rules.

I think that once you work through my little piece of algebra that they're regulating the return to capital in the sectors they regulate. They're going to have to. Maybe it's just going to take several more cycles for them to realize they've got to come up with the materiality threshold.

MR. KLEIN: So I think, Peter, I agree with you that in the regular context of regulating against problems there's a lot of value from a cost benefit framework. I get very worried about it in the framework of financial stability. And I'm worried about it because what are the benefits of avoiding a crisis? So if a crisis costs $14 trillion then a 1% chance to avoid it would be worth $140 billion of regulatory costs, an absurdly large sum, right? Would having promoted some subprime regulations have a 1% chance of averting the crisis? Probably. Would anybody at the time have thought so? Hardly, very few. 0.1%, chance of avoiding a crisis, $14 billion of cost. Can anybody credibly say whether a regulation has a 0.1% chance of avoiding a crisis? No. So I'm worried that when you get this far out on a tail risk framework cost benefit starts to break down.

MR. FISHER: I'm not a fan of cost benefit. I'm just saying something, materiality. Because it's some metric for -- and I offer thinking about volatility mismatches inside intermediaries. That if you're not thinking about this that the totality of the asset liability position, and how it comes together, and what kind of volatility mismatch that is then you're not going to have any basis for drawing the line.

MR. KOHN: A comment, then a follow up question. My comment is, as a member of the Financial Policy Committee at the Bank of England we are required by law to have our -- to be proportionate in our actions, not well defined, but it does give you a sense. But also to do cost benefit analysis where possible. I would say to Aaron's point, that's the -- he's pointed to the exact problem. It's much easier to identify the cost, the compliance cost, or the cost of slightly less available credit than it is to identify the benefit of avoiding the next crisis. But I still think going through that process, even though in the end we say this is really hard and we can't really have a very precise (inaudible) here is a good mindset for regulators to have, and perhaps, Peter's point, they should be going there.

I would like to follow up Peter with your volatility point, which was the main point you made, the conceptual issue. So what would you like the regulators to do? What did you want to hear from Janet Yellen that you didn't hear from her? You criticized this speech she made a little while ago about not taking account of financial stability and monetary policy unless everything else fails first, using the macro tools first. What should she have said that would have made Peter Fisher a little more comfortable, anyhow? And then what -- it's more than saying, what should they do? What are the concrete steps the regulators should take that they're not taking?

MR. FISHER: Well, I would have been more comforted if I hadn't seen interest rate policy completely divorced from prudential policy. I just don't think that's something, when you and I joined the Fed, any of us would have thought about, Don. That you could entirely separate the two. I think we would have thought that most money comes from bank balance sheets, and we have to care deeply about the asset quality of bank balance sheets, and that it's integrated and you can't do interest rate policy and ignore that. So that's the first group, conceptual framework, which follows into my bucket of you're still -- if you're in that mindset, I don't mean to suggest Janet Yellen is, but you're just trying to pump up the financial intermediaries to promote growth, and you see them as kind of a means to an end. And --

MR. KOHN: But you would have run a tighter monetary policy -- a less easy monetary policy --

MR. FISHER: A monetary policy --

MR. KOHN: -- through the crisis?

MR. FISHER: -- that takes account how rapidly you can grow the financial sector's balance sheet, and that that's a stability concern that has to somehow be -- it has to be constrained by stability concern at some level. I didn't see here in her speech last summer at the IMF offering that conceptual framework. I'd say that was my principle worry.

I think that if you do take that into account if you, both at the macro level, and at the individual firm level think well, we really shouldn't be growing credit more rapidly than we're growing the productive potential of the economy. And that's true for the economy as a whole, and that's true for an institution. That just happens to tie you back to Section 2.A of the Federal Reserve Act. That would have given me a lot more comfort.

MR. KOHN: So it's more conceptual than specific steps. You wanted to see her frame the issue differently?

MR. FISHER: I think the Federal Reserve is going to have to, over the next 50 years, figure out how to get financial stability inside its mandate, and not have it be a dangling participle. I just don't think it's going to work.

MR. KOHN: You don't think that macro prudential tools available to the Fed, to FSOC, to the SEC, to any of the member are sufficient to deal with the risks that you see?

MR. FISHER: No. And I -- but conceptually, does that mean we're going to continue to use interest rate policy to stimulate rapid credit growth, but then use something called a macro prudential tool to make sure that we don't have rapid credit growth? What's that about? I don't see how that works. That's, again, a conceptual model.

MR. KOHN: You could think of the macro prudential policy as directing where the credit growth goes and the terms under which credit is made rather than the overall speed, but that's a separate discussion for coffee here.

MR. FISHER: But I'm curious, back to you, Don. I think that the setting in the United Kingdom allows for interest rates to be one of the macro prudential tools. Whereas, the rhetoric on this side of the Atlantic has put them in separate categories.

MR. KOHN: Well, I don't think the rhetoric's that different over there. So

I think Governor Carney has made it very clear that he sees macro prudential policy as the first -- they're using the same words, first line of defense and monetary policy, the second line of defense on financial stability issue. And a concrete illustration of that is when the monetary policy committee put in there we're going to stay zero until certain thresholds are reached. They said, but you, the financial policy committee, can take us off of that after you've tried everything else and then you tell us that our low interest rates are causing financial stability issues. So I don't see a difference across the pond on that score and the basic attitudes.

Do you have any comments on this, Aaron? You want to stay out of this?

MR. KLEIN: I'm enjoying watching. I'm learning.

MR. KOHN: So you worried, as did Rodgin, about the restrictions on credit that were -- and other means of responding to crises. Do you have a top few that you would change? What changes would you -- if you had to go back and -- why do you think we're moving in, what you would say, the wrong direction? What would you do about it? And what would you undue, perhaps, that Dodd-Frank did, if you could move back in the other direction?

MR. KLEIN: So during the crisis, regulators pushed the boundaries of their authority to engage to fix the problems given the tools they had and the ability to get new tools. And from Congresses' perspective, all Congress has is the law. Congress has no authority to show that the law is implemented, and, frankly, little redress if the law is violated. So the kind of -- how sacrosanct the law is is a reasonable position for those in Congress, and that's where I was working during the crisis, to have.

However, you know, during the time of the crisis, you know, society accepts that ambulances, and fire trucks kinds of, you know, and police officers can put on their siren and violate the law. And it's given to them at their discretion. We're seen recently police officers, in my humble opinion, violate the kind of quid pro quo of society, and society's grappling as yet to figure out how to come down on the officers who seem to have violated the law.

With regard to the financial crisis I see it in both directions. One is pretty clear and easy politically to come down on the regulators for somehow violating the law and tapping into that public anger, understandably so, about the Hobbesian choice people were faced with to put in ball outs. So the kind of backlash that Rodg and I, and others express frustration with, and Peter in his paper, you know, is reasonable. There's an understandable way, but it gets the problem backwards.

And so instead I think I'd like a couple things. One is, maybe time heals all wounds, and maybe we can have a bit of discussion as the history books are written about the value of some of these emergency authorities that saved lives. TARP, you know, how many jobs -- where would we have been without the response? Two is an appreciation for the discretion regulators did have. The Fed had not used 13.3 in 75, 80 years despite a couple financial crises and moments when you went back into the history with the autos in the 50s. There were kind of moments when they came close to the precipice. And same with the FDIC and their blanket use of their systemic risk exemption. Congress can get more appreciation for the wisdom of regulators in knowing when to flip that siren. Hopefully, that will take a little bit of time and we won't move, kind of, in that opposite direction.

MR. KOHN: Thank you. I think, Rodgin, one of the reasons I sense that there's a pushback, and what I agree, is the wrong direction is a sense that orderly liquidation authority won't work or will be used in ways that Congress didn't intend it to be used to keep alive institutions that are fundamentally unsound rather than wind them down. Can you give us, you and I, and Peter, sort of on the FDIC's systemic resolution committee, give you sense of the progress their making, and your view of how this might be used, and whether you share some of these concerns that OLA will be used to get around the fundamental will of Congress?

MR. COHEN: I think, Don, it would be not nearly an extraordinarily courageous, because I wouldn't call it courageous, an extraordinarily stupid governmental authority that would ignore the basic mandates of orderly liquidation authority in Title II. It says, quite bluntly, shareholders have to be wiped out. That management has to be replaced, and that creditors incur losses. It is difficult for me to see if you had some of the improvements that I think Aaron and I would both like to see, and I believe Peter as well, in the ability of the government to intervene that you would still be able to violate those very clear mandates.

Now, I can get on a hobby house for a long time. I think we've made enormous progress in getting to a liquidation approach for large financial institutions, but I will revert to the absence of a really formal international approach. Because we aren't talking about institutions that are anything other than international in scope.

MR. KOHN: Do you have any thoughts on that, Peter?

MR. KLEIN: I agree with Rodgin. Global coordination, ways to bind countries. I do think we are always solving the last crisis, and it's never the same thing twice. It's not going to be subprime mortgages, it's not going to be Tokyo real estate, it's not going to be Dutch tulips. But my guess is it's also probably not going to originate in America. The next asset will be -- bubble or crisis will probably well be imported.

MR. KOHN: Peter?

MR. FISHER: I agree with Rodg and Aaron. I'd just like to, on the political front, if I could. I think there's just such a profound misunderstanding on the part of our political class that the financial system we have depends on liquidity illusion. We cannot all take our money out of the bank the same day. We cannot sell our stocks and bonds the same day. Just the system doesn't work that way.

Keynes' taught us that liquidity is an anti-social fetish. We can't all be liquid.

MR. KOHN: But sometimes that's called the law of large numbers.

MR. FISHER: Yes.

MR. KOHN: But when everybody tries to take it out at the same time --

MR. FISHER: Yes, it doesn't work. And so the system needs a backstop. We like that the velocity of financial transaction, more or less that we have in society today, and we need a system to backstop it. And as long as we feel we're going to punish -- whether they deserve to be punished or not is a different matter, but we're going to punish those who are left holding the bag, as Rodg explained, under Title II. I think it's a mistake to think we've really got to tighten up on this or somehow we can resolve the next financial crisis without the scrubby business. I think that that's what's driving the political class, and I just wish they had a better understanding of the velocity of finance that we depend upon.

MR. KOHN: There is a contrast on the two sides of the Atlantic because the Bank of England, if anything, has expanded their access to lender of last resort. But only to heavily regulated, highly regulated companies, not to just everybody, but they've expanded it rather than contracted it.

Questions from the audience? Doug?

SPEAKER: Thank you. I have one comment and one question, both for Peter. The comment is, I think when you talk about macroprudential policy, you downplay the extent to which most people see it as a resilience tool, rather than as an attempt to change the cycle itself. And so, you end up putting monetary and macroprudential policy on a single spectrum, as it if were all about supply of credit. So, you might have a comment on that.

The question is, could you explain what you mean by volatility mismatch? (Laughter)

MR. FISHER: Well, it goes through -- the first point on macroprudential and monetary goes to my conversation with Don, when we sat down to chat. If we're not constraining the growth of credit in some way, then I don't think we're in the game. If you're just waiting to clean up the mess the next time we have a financial crisis, that's not the same thing as trying to get growth and resilience, to borrow Aaron's phrase, in the financial system as a whole.

So, that's why I take your point. There are lots of good prudential -- I'm in favor of bank supervision and financial supervision. I'm not a gain it (sic) (Laughter). But I'd have to see how it works together with the view that we're going to stimulate the economy through credit growth, and we're going to restrain. And having those tools at war with each other, I think we have a manic financial sector. That's my view of how it works.

The volatility mismatch -- different assets have different volatility profiles. The expected return they get, the risk that they will perform as expected versus the way -- implied volatility would be the concept that we would measure. We have historic volatility. And then, we do our best to see what the asset liability mismatch already is that a firm is running.

Now, banks run the most extreme. They have zero duration liabilities in the form of deposits, and then, we let them hold all manner of illiquid credit assets on the other side to take a stylized approach. That's a certain volatility mismatch, and they make a certain kind of money on it.

Insurance companies, pension funds run very different volatility mismatches that are less tending to be illiquid. Our pension benefit guaranty corporation here in Washington just doubled its negative equity position from 30 to 60 billion, as I know you would be acutely aware. No one's worried about them running out of money this month. There's no liquidity component to that. They're in a very bad place, but filling that hole with capital just conceptually isn't going to solve the problem. It's the nature of the volatility mismatch we let them run.

So, thinking of assets and liabilities as having volatility profiles and then putting them together and seeing how they behave together, and seeing whether that's something you think is sustainable or not is I think -- is the core of whether we can stabilize individual financial institutions.

SPEAKER: A closely related issue is liquidity perceptions and liquidity mismatch, and there, putting your other hat on, we have this asset manager issue and bond funds and the expectations that the investors in bond funds have; expectations of higher liquidity than the bond funds themselves could deliver under stress. Is this part of the volatility --

MR. FISHER: Yes, sir.

SPEAKER: -- mismatch you were thinking about? And what would you do about it?

MR. FISHER: Well, all 40 Act funds, bond and equity implicitly have -- you have set -- the liability is converted to cash in seven days on today's closing price.

SPEAKER: Right.

MR. FISHER: Whether bond or equity. And the assets may or may not be. So, they're all running -- that's an expression of a volatility mismatch inside a 40 Act fund.

SPEAKER: Right.

MR. FISHER: And I think the challenge I really was giving is, I think the authorities have to think what part of the capital structure of the world that they want which type of intermediary to hold. Right now, they're looking out at the world and saying, well, we don't want this one to be risky. We don't want that one to be risky. We don't want insurance companies to be risky. We don't want bond funds to be risky. We don't want banks to be risky.

No. Someone is going to hold each part of the capital structure of the world. And you want to think about lining it up, the asset side with the liability side that looks like it works. And insurance companies look different than money market funds. And if you don't approach it that way -- if you approach the sort of one dimensional risk, then we're going to accentuate Rodge ended with the ugly one, or we're just going to be pushing it out to somewhere else. That's the balloon. We squeeze here, and it goes somewhere else. And I think that will not end happily.

SPEAKER: In the UK, we talk about a waterbed effect instead of a balloon effect. I like it much better (Laughter). So --

SPEAKER: Hi, good morning. Thank you for being here. My name is Sahad. I'm a student at the University of Iowa, here for a summer internship. This is a two part question.

First part is, what does the panel think about possibly bringing back Dodd-Frank where it -- not Dodd-Frank, I mean Glass-Steagall, where you know, the investment banks and commercial banks are separated, so that investment banks can take risk out of consumer's money, or what William Cohen, a financial author, has mentioned -- putting investment banks back to private partnerships where the partners, you know, risk their own money. So, there's far less risk used than the regular banks that we have now.

And the second part of my second question that I have is, of course, 2016 election cycle is coming up. What do you guys -- what is your comment on Senator Rand Paul's audit the Federal Reserve bill? And those are my two questions, and thank you for being here.

MR. KOHN: Who would like to take on some of those questions.

MR. COHEN: I'll be glad to start --

MR. KOHN: Okay, Rodge.

MR. COHEN: -- with Glass-Steagall. You know, there are so many myths about Glass-Steagall that it's hard today to find the reality. Glass-Steagall itself was a total myth. It was based on the assumption that a number of banks had failed because of their securities activities. There wasn't a single bank of any size that failed because of its securities activities, and the principle example which was used, which was Bank of United States, actually failed for the same reason banks tend to fail, because of real estate activities.

Likewise, you look at 2008, and it is hard to find a single institution where the outcome would have been different, had Glass-Steagall been in effect. So, it is hard to see why re-introduction of Glass-Steagall is even close to desirable, when there is no record that the problem that is somehow created as a myth, never really existed.

And then, there is just one other part of the myth I want to deal with, and that is that all these deposits can be used. Glass-Steagall, notwithstanding claims to the contrary, was not repealed by Gramm-Leach-Bliley. One piece of it was repealed. There have always been two pieces -- what affiliates can do and what banks can do. And banks, of course, are where the deposits are.

Gramm-Leach-Bliley repealed the part dealing with affiliates; the part of Glass-Steagall. It did not touch one iota what the banks themselves where prohibited from doing. So, I think the Glass-Steagall debate has to be dealt with in terms of what really happened in '29, throughout the Depression, 1999 and 2008.

SPEAKER: So, let me start. There's another part of Glass-Steagall that nobody talks about, which was the separation of banking and insurance. In fact, it's not crazy to say the desire to merge a bank and insurance company was one of the driving forces behind Gramm-Leach-Bliley.

Nobody seems to -- two things we can say. Whatever the theory of co-mingling banking and insurance in the financial supermarket was, it didn't work. We don't see that. Two is, it had nothing to do with the financial crisis. There was no bank/insurance toxic combination that took things down.

AIG, nontraditional products, and they did have problems. AIG had substantial problems in its insurance subsidiary unrelated to any banking perspective. So, that's an example of kind of the theory led you into one direction. We had an experiment. Market reality has shown it doesn't work, mixing the two. It didn't really impact financial stability.

In regard to the second part of your question, two things. One is, simply put, I think the Paul bill is a bad idea. I worked at GAO. GAO is a wonderful organization. Having GAO in seven days put out real-time reports kind of second guessing the Federal Reserve's monetary is a horrible idea.

That being said -- that's what the bill is, by the way. The term "audit the fed," which is kind of what it's known by. Right? The fed is audited. It's audited multiple times. Don probably sat on the audit committee of the fed (Laughter). That being said, there are problems with the Federal Reserve structure. There are problems with the

Federal Reserve -- parts of its transparency, particularly on regulatory policy -- it's monetary policy is very transparent, I think.

And there are problems with its governance structure. You know, the Federal Reserve has an inspector general appointed by the chair of the fed who can't investigate all of the activities of the Federal Reserve System throughout the regional banks. There seems to be a growing problem among group think and the lack of dissent -- a kind of healthy amount of dissent by some of the appointed governors and potential problems in creating independent people becoming Federal Reserve Bank presidents.

There are 11 sitting Federal Reserve regional bank presidents. Ten of them were employees or members of the Federal Reserve regional bank board immediately prior to that. That feels a little (Inaudible). So, I think one of the reasons that the Paul bill or this audit the fed mantra has become very popular -- I'm glad you're here from Iowa. I think we in Washington fail to appreciate how unpopular parts of the Central Bank are in parts of the heartland of this country, and have always been in American history. The fed America's third attempt at a central bank. The first two didn't make it.

And so, that being said, just because there's a problem doesn't mean a solution makes the world a better place. And this solution put forward on the Paul bill would not -- would be a step backward.

SPEAKER: I associate myself with my colleague's remarks.

MR. KOHN: All right, and that's a -- well, we're out of time. No?

SPEAKER: No.

MR. KOHN: We have more time?

SPEAKER: You can go until 10:30.

MR. KOHN: Oh, good. Okay. All right.

SPEAKER: Thank you. I'd like to ask Rodgin, you mentioned the profitability issue, low interest rates, the effective regulation and whether this was sustainable.

I hear a lot, and I'm distancing myself a little bit from this, but I do hear it a lot from some very credible people, that the financial sector is too large; that it's actually inhibiting growth. It's attracting talent away from things they should be doing, developing new Facebooks, I guess, or whatever; doing other things, and that bankers make too much money.

So, that the notion, I think, is quite entrenched in popular thinking that somehow, that reducing the profitability or the size of the financial sector would be a good thing. And just before I close, I want to relate the fact that my daughter's father-in-law who lives in Indiana asked me, what about this Rand Paul bill. And he said, now, the fed is sort of owned by several of the big banks, isn't it (Laughter)? So, there are some illusions there about it, then.

(Laughter)

MR. COHEN: Well, you know, I guess the best way to answer this, I would agree that it is -- that is a popular set of perceptions. Being popular, of course, doesn't make it correct. And frankly, you are seeing the banking system shrink. You are seeing talent leaving the banking system or not going to it.

And again, if somebody would just do some legitimate research as opposed to really just spouting political views, there is the suggestion made that you look at 2008, and you look today, and the U.S. -- the largest banks are larger than they were then. Not so fast. Subtract the emergency deals -- the Countrywide, the Merrill Lynch, the WAMU, the Bear Stearns, and the banking industry is actually -- the large banks are actually significantly smaller than they were in 2008.

So, I think maybe for good, maybe for bad, what -- the desire to shrink the largest banks is, in fact, occurring. And do you really want to have a situation where not if, but when we have another crisis, which none of us can foresee exactly what will cause it, that there's nobody around who will be willing to step in and buy assets or buy institutions to help buffer the crisis.

MR. KOHN: Do we have any views on the ownership structure of the Federal Reserve? Aaron's already addressed some of those issues. Peter?

MR. FISHER: Well, it's true that member banks own stock of the reserve banks and get a statutory dividend, but they don't seem to exercise control that normally goes with that. When we think about that in corporate governance terms, we think of controls tending to lie with the board of governors and their staff.

So, but I think there are a number of -- the evolution of the Federal Reserve system has left it with an imperfect governance structure, as Aaron was saying, which I would share.

MR. COHEN: Don, could I just add one point? To the extent, and I believe this is the case, that the members of the reserve bank boards are really there as sounding boards, as informational sources. I think one better look long and hard at the New York Fed and the change in the composition of that board, and whether it is still an appropriate sounding board for the New York Fed.

SPEAKER: Well, I don't know if you saw the revelation in the Philadelphia fed boards -- structure of picking a new president, that -- it was just reported in the paper that one of the board members sat on the selection committee, sat through the 12 finalists, and then, decided to put his name in the hat and a week later was named the next president.

SPEAKER: Hold the Cheney (Laughter).

MS. JACLYN: A few of you have -- Nancy Jaclyn. A few of you mentioned the issue of structural regulatory reform, and for those of us who have been in this business 30 or 40 years, we hear about that a lot, and it never seems to happen. But I wonder whether there are enough changes now that the tide may slowly be moving in that direction.

It's the financial sector of the view at this point that regulatory arbitrage is not what they're after, but regulatory simplicity may cost them less in the long run. And is there any movement on the Hill among the committee heads to be willing to look at some simplification in the regulatory structure.

MR. KOHN: So, I guess in addition to bipartisan policies, the center believes that we ought to consolidate former Fed Chairman Volker with the Volker Alliance -- has put forward a big and thoughtful proposal. So, I think there is growing appreciation that this is a source of vulnerability -- a source of instability as our own regulatory system.

Unfortunately, history does not offer many high points. Each of the varying regulators was created in response to a different financial crisis. Going back, somebody mentioned the OCC being 150 years old. There was a national banking crisis during the Civil War. It didn't just come out. President Lincoln's imagination -- he wasn't -- I don't think banking was the number one issue on President Lincoln's plate.

That being said, you know, Dodd-Frank was the same. Every crisis creates these new entities, but they tend to live on. Dodd-Frank created three more, OFR, you know, FSCO, CFPB. It eliminated one, the Office of Thrift Supervision. So, we're net plus two (Laughter).

Eventually, this is going to have to end at some point, or we're going to have a total alphabet soup. But I can't say that there's -- you know, there's growing appreciation of the problem. The likelihood of it being solved before a crystallizing event, unclear. One thing we've put forward is an intermediate step, where the regulators could work in a team.

I think one of the most important things that were said this morning by OFR Director Berner was the difficulty in data sharing; that once you come into Washington, it's a lot more complicated than you think. We have kind of a solution to that. Have all the regulators do a joint examination.

Instead of having these large financial institutions get four or five separate examinations, write one joint exam report. Everybody in that way would have access to the data in real time. The regulators would just have to trust each other's examiner's a little bit. And they'd have to have a little more of a common base. And we think both of those things would be a positive outcome.

Regulators, by the way, could do that right now. They need no new legal authority to run that type of pilot program. Back there.

MR. CHARDON: Hi. Justin Chardon, Bipartisan Policy Center. Aaron mentioned, the FSOC is an agency that was created as a step forward, but really hasn't gone far enough or hasn't been constituted the right way. In an ideal world, what should FSOC be focused on to have the best net positive benefit? And do they have the authority to do that right now?

MR. KLEIN: Well, I'll be glad to start. I think that FSOC has obviously had to spend an enormous amount of time and energy on the designation of non-bank SIFIs. To me, it should be a joint FSOC OFR effort to really get the collective arms of the various agencies involved around the totality of what we have done in terms of regulation; where it should be strengthened, where it should be liberalized, where it should be better coordinated.

That is my view of what FSOC could be most valuable -- it was supposed to figure out the risks and not just non-bank SIFIs. It shouldn't be just a glorified version of the president's -- whatever it's called, working group, financial institutions working group.

(Simultaneous discussion)

MR. KOHN: Okay, back here.

MR. GILMORE: I'm John Gilmore with the Comptroller of the Currency. Peter mentioned sources and absorbers of volatility. I was just curious as to -- if you could expand on that and identify some of the parties, and then how they work within the U.S. economy and contribute to our growth.

MR. FISHER: Well, a balance sheet is good at absorbing volatility; the banking example, I meant to use. It's simplest, as when you see that they don't have very short dated liabilities. So, if you've got long dated liabilities and volatile assets, which is what insurance companies classically would tend to have, you're an effective absorber of volatility. In the short run, assets go up and down in value, and you can withstand that volatility, so you can, in conventional language, take more risk.

If you've got very short dated liabilities, then you're more vulnerable. So, that's the simplest way to think about a volatility mismatch. I think every balance sheet is better or worse at absorbing volatility, and I think that the thinner your capital, the more likely you are to not be a good absorber of volatility.

But I think it's a mistake we've made of thinking of capital is the only thing or the principle thing that makes you good at absorbing volatility. So, I think that is -- I'm offering that as a conceptual framework to then look and say, who do you want to hold the long dated equity volatility risk in our economy.

And I gave a talk in Europe last summer in which they are simultaneously both very focused on wanting more long-term investments and imposing a bank capital like regime on insurance companies. And I made the point to them that the Marshall Plan was a trivial source of support for Europe's reconstruction after World War II, a tiny share of European GDP.

Insurance company balance sheets were a major source of rebuilding Europe after the way in long-term investment; that they permitted them to take those long dated risks, and yet, imposing a capital regime which punishes you for taking long dated risky assets, if you will, even though your liabilities are very long dated is going to diminish their capacity to have long-term investment in Europe to help them rebuild their way out of this most recent crisis.

So, those are a few more thoughts on just -- every balance sheet is better or worse at absorbing volatility, given the characteristics of its assets and liabilities. So that's a --

MR. KOHN: Would you say the regulation -- for the first time of bank liquidity -- so what you're defining as volatility, is also -- can be seen as just maturity mismatch. And to some extent, the regulators, at least on the bank side are focused by now, imposing liquidity requirements on the banks to better match the --

MR. FISHER: Yes, but I think if you step back and think about the volatility characteristic of the liability and the asset in totality, not just -- liquidity is one or maturity is one, but it's how risk -- the other things that go into the prices moving around of the asset and liability. I suggest looking at all of it.

Now, the banking system is the one that runs the most extreme asset liability mismatch. And so, there are reasons for concern. But I've actually been trying to unpack the complaint that the FSOC and the SIFI process are treating everything as if it's a bank. And I think the one way to begin unpacking that is to say well, what is the asset liability mismatch you want pension funds to run? And what is the asset liability mismatch you want insurance companies to run?

And then, what is the asset liability mismatch you want banks to run? And you can think of the narrow banking proposals or the hundred percent equity banking proposals as a way of changing what the asset liability mismatch of the thing we call banks are.

And so, this is a way to start unpacking this complaint that the FSOC is treating everything as if it's a bank; it's to actually then ask, well then, what is the asset liability mismatch you want them to run?

MR. KOHN: Okay. So now, I do think we're out of time. Is that correct?

SPEAKER: Yes.

MR. KOHN: Did I get it right this time? Okay. All right. So, join me in thanking the panel. (Applause)

(Recess)

MR. ELLIOTT: -- so please consider this a two minute warning. So, you've got about two minutes to finish up, and then we'll get going.

(Recess)

MR. ELLIOTT: Good morning, I guess we still are. Good morning, everyone. As you probably know, I'm Doug Elliott with economic studies here at the Brookings Institution, and I have the honor of moderating the next panel.

The purpose of this panel is to focus on what is actually happening where finance meets the rest of the economy. We've gathered three excellent panelists, each of whom will have 10 minutes of initial remarks. After that, as with the previous panel, I'll gather them up here for a discussion, and then, we'll have a Q&A with you in the audience.

We'll proceed in alphabetical order, starting with Tom Deas, who is vice president and treasurer of FMC Corporation. He'll be followed by Scott Musial, a principal at Treasury Strategies. And we'll end with Eric Rodriguez, who is a vice president at the National Council of La Raza.

You have their detailed bios, so I won't take up more time now with introductions, since I'm sure you'd rather hear from them. So Tom, please take it away.

MR. DEAS: Thanks very much, Doug. When I was invited to come here in March, and again, now, I ought to give the view from the trenches -- I didn't think I would be the walking wounded (Laughter). So, I just want to apologize. If you see me wince, I threw my back out on Friday and I'm just getting used to that.

So anyway, thank you, Doug and Martin for inviting me. I am Tom Deas, the vice president and treasurer of FMC Corporation, and I'll tell you a little bit about my company and its activities in the financial market. I am the immediate past chairman of the National Association of Corporate Treasurers, an organization of treasury professionals from several hundred of the largest public and private companies in the country.

FMC and NACT are also part of the Coalition for Derivative End Users, which is a group that represents thousands of companies who employ derivatives to manage their day-to-day business commercial risks. I am also privileged to be the immediate past chairman of the International Group of Treasury Associations, of which the U.S. National Association of Corporate Treasurers is a member, along with some 30 other national treasury organizations of 30 other countries.

And my message is very simple. Financial stability should be obtained through these regulatory reforms we've been dealing with for the past four and a half or five years, and should -- we support transparency, the stability that these measures are trying to achieve. And we believe that they can be done without imposing undue burdens on end users. And so, I'll give you some examples of how we're trying to achieve that balance.

FMC is 130 plus year old company. We listed on the New York Stock Exchange in 1931 as the Food Machinery Corporation, and like every company that's been around, NYSE listed for that length of time, we've morphed and changed several times. We're a chemical company, and we use a variety of manufacturing processes to make some of the things that are in this very room.

FMC and other end users certainly support the overall aims of the Dodd-Frank Act to add transparency to the derivatives market, because we and many other end users employ these financial tools to hedge our day-to-day business risk. However, as was the intent, we believe, of the law and the regulations, end users should be exempt from some of the provisions that were intended to reduce the inherent riskiness of swaps that financial counterparties and swap dealers are using -- those who are running an open book. End users, like FMC, employ derivatives to hedge risk and day-to-day business activity. We're -- importantly, we're offsetting risk. We're not creating new risks.

Let me give you a couple of examples of how we're doing that and how the regulations have been proposed, or in some cases, implemented, that would maybe disturb that balance. The two areas would be cash margining of derivatives for end users, and the use of clearing -- in-house clearing agencies called centralized treasury units.

So, the idea behind central clearing was to reduce the inherent riskiness of the system by creating clearing houses, and financial counterparties would clear their derivative trades through these centralized clearing parties, and would do it daily, and in some cases, depending on the price, even more than once a day, valuation of the derivatives. And to the extent that a counterparty's derivative position is under water, it would need post cash margin to offset that amount.

There was, when the bills -- the various versions of Dodd-Frank came together, you remember there were versions from the House Financial Services committee, the Senate Banking Committee, and the Senate and House Agricultural Committees. When they came together at two or three in the morning in 2010, there was arguably a glitch in the way the margining exemption, which was broadly understood to apply to end users, was actually enacted in the law.

And therefore, we have had a situation up until very recently, where we haven't had agreement among the various regulators as to how end users should be treated with regard to this requirement. The Commodity Futures Trading Commission, under Chairman Gary Gensler, read the law to mean that for swaps that that agency regulated, that end users would be exempt from having to post this cash margin.

However, the prudential banking regulators looked at it -- the same law (Laughter), and concluded that if an end user is doing a derivative with one of the banks that they regulate, that they were going to require the bank to collect end user margin and collect that cash.

Now, let me just describe the effect in my trench, if that were to happen. We surveyed, as an example, the non-financial companies in the business roundtable, of which FMC's a member and other large companies are members. And if we looked at the derivative positions, valued them with assuming a 3 percent initial margin position and not counting any ongoing margin, that requirement would on average, result in $269 million needing to be put up by these banks as cash margin.

And in our world, that's a -- we live in a world of finite constraints, and $269 million is a direct subtraction from funds that would otherwise be used by the corporation to expand plant equipment, to grow inventory to support higher sales, to conduct research and development activities, and ultimately, to sustain, and we would hope, grow jobs.

And so, we argued that unlike financial counterparties, which institutions would be running an open book and maintaining open and potentially unbalanced positions, end users' positions are inherently balanced. In order for an end user to qualify, that company needs to be hedging an underlying commercial risk, and it needs to match the derivative exactly as to its timing, its amount, if necessary, if applicable, a currency.

And so, from time to time, as you value the underlying business risk, it moves at an equal and opposite direction to the value of the derivative, and the two are matched. If you impose a cash margin requirement, you've actually taken that balance situation and made it unbalanced with a new, daily changing liquidity demand on treasurers.

And since it's a bad day if you fail to meet a margin call (Laughter), we would hold extra cash aside, just to make sure. And so, all of that liquidity reserve, also, would be a subtraction from funds that would otherwise have available.

So, we've argued this point, and actually, at the time the bill was passed, it became immediately apparent that there was this glitch. Chairman Dodd, Chairman Lincoln, Chairman Frank -- really, all of the principle sponsors of the bill and their colloquies on the records shortly after the bill was passed in 2010, saying, look, in anything that is this number of pages, we're going to need a technical corrections act.

We're going to get that teed up and take care of some of these things. And this very issue was one that they acknowledged needed to be taken care of on behalf of end users. And I had the privilege of -- well, in April, but also, last July, to testify before the House Financial Services Committee on the fourth anniversary of Dodd-Frank.

And I sat next to Chairman Frank, who was testifying before his old committee, this time as a retired member offering advice to the committee. And he said several times during that hearing that he agreed with the position that end users should be exempt from that.

So, through the mechanism that everybody has to bear some fault for, we went four and a half years until January 12th of this year, when the president signed a provision that was inserted in the re-authorization of the terrorism insurance bill that took care of this problem. It had broad bipartisan support. It passed in the House by a very large majority, and it passed in the Senate with essentially no objection.

But it took that long to get it done. And in the meantime, what we know as financial people is that financial markets abhor uncertainty, and we lived with that uncertainty for a period of time. So, we at least achieved harmonization among U.S. regulators -- the banking regulators and the CFTC, the other principle regulator of derivatives.

But I have to report to you that the international harmonization has not been achieved, in that in Europe, end users are exempt from much of the additional capital requirement that the earlier panelists that were talking about, that banks need to hold against their derivative positions. And instead, you know, in the U.S., we have that extra capital that needs to be held.

So, I just want to tee up for you the risk that in having this lack of harmonization, we've created a situation that balkanizes a capital market, fragments it into segments that reduces liquidity and achieves the opposite result of what we all said we were going to achieve after the 2008 financial crisis. Thank you very much. (Applause).

MR. MUSIAL: So, I first want to thank Martin and Doug for pulling this together. Very excited to be back here. As a native Chicagoan, in March, when I was told we were going to be cancelling this over a few inches of snow, I was a little confused (Laughter). But then again, this is suitable attire for 20 degree weather, so I may be slightly biased. (Laughter)

I'm very excited to share the views of my organization and myself about what is happening in the trenches today. A lot of what we're talking about our objective is to identify obstacles and road blocks to financial stability, growth, and innovation. And to do this, I want to share with you some of our direct experiences working with commercial banks, working with corporate treasurers as they digest this massive fire hose level stream of new regulation and try to manage their business and do all of the great things they have to do, day to day.

To do that, I'm going to share a few examples of what we're seeing with banks. One of the examples was going to be exactly what Tom just talked about. So, I'll save you the detail there and give a great big ditto, because it is a very big issue.

The rest of my examples are going to be about my experiences in commercial banking. We joked earlier about the plight of the poor bond trader. My remarks are going to send a little bit about the plight of the commercial banker, but I can hope that I can connect the dots for you.

What we're talking about is the plumbing of the financial system, and the infrastructure that needs to support economic growth, stability and innovation. And at Treasury Strategies, we see those obstacles day in and day out.

In a brief note of Treasury Strategies does, what I do day to day, we are a leading advisory firm in the areas of treasury management, liquidity, payments and deposits. We consult with the CFOs and treasurers of major, multi-national corporations, large healthcare systems and state and local governments.

We also consult with major global and retail banks, as they deliver the services to the CFO chain to help those things happen. As I mentioned, I'm part of our banking practice, so I work with banks as they deliver payments, liquidity, receivable services to banks as they try to manage their working capital.

To level set where we're at, I want to give a little status update on Dodd-Frank. You know, Mr. Berner mentioned in his keynote that ultimately, in the short-term, you need to make a trade off between financial stability and growth, which I agree with. It makes sense, and especially in the dark days of 2008 and 2010, we needed to make drastic measures to stabilize the economy.

But when you think about where Dodd-Frank is today and where we're at, this is not completed task. We'll move on to the next thing. Dodd-Frank 390 rulemaking provisions in it. That meant that that thousands of pages document, that was six pages of printed paper was really pointed to a lot more paper that was going to be written in the next year.

As of the first quarter of this year, we're about 60 percent of the way through. Two hundred and thirty-five of those rules have been finalized. Eighty-four have yet to have been proposed, and another 71 are somewhere in between. So, when we talk about short-term trade-off between stability and growth, what our clients are in today is not the ending act of the play. We're really in the middle of the tortured second act. That 71 and the 84 means there are 150 plus more rules that banks and financial organizations still need to root through, and we're five years past the passage of Dodd-Frank.

The first example I want to give is actually not related specifically to Dodd-Frank, but another big issue that banks are struggling with that has to do with the Bank Secrecy Act. So, all of the work that banks need to do to know their customer and monitor anti monetary laundering activities.

At the beginning of this year, we were hired by a large community bank in the Midwest to look at the documentation they are collecting from their clients to open checking accounts, because they were telling us they were losing business over this, and we were highly skeptical about this. Because these are clients that have already taken in loans from the banks, already set up services -- so, the idea that something as simple as opening a checking account would be so bad that they would lose business over it.

But when we started actually engaging the bank, what we found was actually rather shocking -- that they were losing business. This engagement specifically was because an 80 year relationship of the bank -- a relationship started by the CEO's father, left the bank over this issue, and told the CEO as much.

So, you can imagine what the CEO's message was to the senior leadership of the bank. And through our interviews about how you collect documentation, what you collect and everything, what we found was there were process issues, for sure. And that has a lot to do with the fire hose that's being opened up on banks, and that they have to really definitely respond to.

The other major issue, though, goes back to this idea that '71, where we're in between the proposed rule and the final rule, what you had was a compliance department and a legal department that were doing the right thing. There is a rule around collecting certain information about what's called beneficial owners -- so owners that are not on paper, but benefit from the proceeds of the account, and the legal and the compliance department was being very aggressive in pursuing that. But the rule is not final.

So, when bankers had to do all this very hard due diligence that was angering their clients, they looked to the market, and they didn't see other banks doing that, and that's because the rule wasn't final. But when we talked, and this is a major theme we've seen today, you know, regulators say that the proposed rule is very close to final. It's going to happen any day now.

And, you see a lot of indirect messages that you need to be prepared, even though your client -- even though the rule is not final, either you're compliant today, or you show me a plan when you're going to be compliant.

So this bank, which was trying to do the right thing ultimately, was losing business over that. And again, for something as simple as opening a checking account, I had a commercial loan officer tell me that it was far easier to loan a client $25 million than it was to open up a checking account to hold that money.

The second example that I want to give that our Mr. Klein brought up earlier, was this idea that you have like two or three solutions to a single problem. And that causes paralysis. We work with some bank treasury departments, and there are two big liquidity regulations in place today, and one is called the Liquidity Coverage Ratio, and the other is a liquidity buffer that they're supposed to hold (sic) related to their stress test.

At the simplest level, both of these regulations call on a bank to hold high quality liquid assets to cover a 30 day stress period. Liquidity coverage ratio is a very specific thing. The banks don't have a lot of leeway to define what that stress period is. And then, you have the stress test on the other side, which defines their buffer, which is very different process. It's their own stress test.

But these are two distinct processes that they need to run in parallel that attack the same problem. And at the end of the day, what we're serving bank corporate treasurers now, is how do you rationalize those things?

We were having conversations of like you have an HQLA buffer that related to LCR. You have EPS buffer. And which one is -- you know, when you actually ask a simple question, what is your liquidity back stop day-to-day, that is a very difficult question that's causing a lot of consternation in bank treasury departments. Again, paralysis.

Another thing that we are seeing that is probably most disconcerting of all of this is retraction from businesses. We are seeing banks actively exit businesses in a pace that is -- basically, we have never seen before. We talked about before how a big wind of the post-crisis regulatory reform is that we've taught banks to be risk managers, which I agree with. That was a definite gap in there.

And now, we've taught them. But what is happening now in the wake of regulatory uncertainty, they are looking at certain businesses, and they are exiting them, because they don't know the direction of them.

Going back to the example of bank secrecy and know your customer, a lot of interpretations of that ultimately mean that the banks not only need to know their customer, but they need to know their customer's customers. We have seen a bank exit a large electronic benefit program at a large local government. So, debit cards -- pre-loaded debit cards to transfer child support benefits, welfare and other entitlement costs.

We've seen a very large bank exit that business, because ultimately, they can't do the due diligence on all the holders of their debit cards. Regulation says it's not the per se, government that's your client. It's ultimately those users of the debit cards who are. The bank simply said no mas, we can't do it. That's too much.

Another example that we see, very similar to this are property management. So, you -- for all of us in the room today that are part of associations and property managers and that type of thing, those -- it's very easy for you to submit payments through your ACH debit. Again, the same thing applies, and banks are backing out of those businesses because they can't do the due diligence on you when their clients are the managers. Thank you very much. (Applause)

MR. RODRIGUEZ: All right, good morning. Good morning.

CROWD: Good morning.

MR. RODRIGUEZ: (Laughter) So, I'm Eric Rodriguez. I'm vice president at the National Council of La Raza. I get to oversee public policy.

I suppose when many of you opened up your agenda today, you didn't think that you'd see the National Council of La Raza right there, smack on a panel right in the middle. We are often known for our work, of course, on immigration reform and Latino vote and other issues, where literally, the trenches are trenches -- people fighting in those trenches, and our affiliates who do a tremendous amount of work, literally in trenches, working on these issues.

But we're a very unique organization. We've been around for 47 years. We were created as an organization to create other organizations in the Latino and Hispanic space, and so, we have 250 community based affiliates all across the country that do a range of services that we work with them on.

And over the years, one of the key areas that we worked on is housing and home ownership. When there was broader recognition in the mid-90s that immigrant families who should have access to prime credit were not getting it, so that they could afford loans, it was our affiliates, along with partnerships with Fannie Mae and banks that created home ownership counseling as a service as well as products, to be able to lend to those families.

And that program has grown over the years to provide lots of credit worthy immigrant families access to prime credit and homes. Now, given the environment, of course, the amount of credit available to families has substantially decreased. But that's another way in which our organization is very unique.

We get to see what's happening on the ground to work with many of our affiliates, and we try to apply that to public policy issues that come up that are current. So, one of the ways in which we've come to this issue is just seeing what was happening with respect to sub-prime mortgage lending in all of our communities across the country, as well as auto lending and pay day lending.

So, our team worked very hard on Dodd-Frank and was able to secure some important victories, not the least of which was the creation of the Consumer Financial Protection Bureau, which I recognize, maybe somewhat controversial in certain places. But it's a great pleasure for me, therefore, to be here to be able to share some of that perspective with all of you, and why that's important from a consumer perspective, but also, from a Latino and immigrant perspective like an organization like us.

So, I want to thank Martin and Doug, and certainly, Aaron, who presented some of the information earlier. We were also a part of the Dodd-Frank Review Commission and looked very, very, carefully with my friend, Rick Fisher -- we specifically focused on CFPB and what they were doing, and what they were doing right, and how would could make some improvements to what was going on.

So with that, I just want to share three specific things. The first is that consumers are still feeling the effect of the crisis. Right? The second thing, quickly, is that the consumer market is changing quite dramatically across this nation, and certainly, in particular states more quickly. And then, I want to share some reflections on this notion of resiliency rather than stability, and what we think it means from a consumer, and certainly, a Latino perspective.

So first, consumers still feeling the effect. Right? There's a lot of new data that's coming out from various different entities. JPMorgan Chase just released a study that showed lots of volatility with their institute in terms of income and financial issues.

The Center for Financial Services Innovation, of which I'm on the board, also released a study on financial health this spring that showed 57 percent of households are struggling financially, and put those into little boxes, so we can see exactly what's going on in each of those sets of households. And that's an important study and contribution, as well.

And then, for particular segments, which of course, is important for our community, we know that Hispanic and black wealth levels have dramatically declined since the crisis. For Hispanic households alone, it's a 40 percent in house -- home equity between 2007 and 2010. And they have not recovered. If you look at home ownership levels, just as one example, the home ownership for Latino households right now is about 44 percent, and that's down from 50 percent only 8 years ago.

So, the effects of the crisis are still being felt in communities, certainly being felt in households much more broadly. And if nothing else, it is very clear that that is feeding the political environment. When you have a bipartisan consensus that we have to do something about income inequality and poverty, oh my god, things have turned on its head.

But that's how some of these things, these issues that we're talking about, this data -- what we're seeing with respect to regulation is feeding populism, and we're -- around these kinds of issues, and I think we'll see how this plays out, certainly in the elections to come.

The second point on the consumer market that's changing dramatic and demographically, just a few data points. Eighty-two percent of household growth between 2005 and 2050 will be attributable to immigrants and their children and this country. By 2044, 14 states will be a majority minority. That's up from three, today.

Closer to today, by 2020, 50 percent of potential home buyers will be Latino and Hispanic entering into markets, and this is why one of the important things that we were putting out there with respect to the Consumer Financial Protection Bureau is that in 10 years' time and over time, the work that they do should increasingly reflect how our population is changing demographically, placing an emphasis and a focus in areas where immigrants, Latinos, African Americans and Asians are often doing business.

So, some quick reflections on this notion of resilience or stability or however you choose it. I think resilience is actually an excellent word, and for populations and segments that we care about, consumer protection has to go hand in hand with access to credit. There's no question about it. Right?

And credit markets are way too tight today. I think we have to figure out different solutions to ensure that more segments have access to very affordable and are able to have both the ability and the opportunity to attain some measure of greater financial security in our markets. And there are a lot of questions about what this is going to look like, but fundamentally, in my mind, what we see over markets is innovation has to play a real important role in reshaping these markets.

And it may not be the big bang sort of driving all of this. It may be smaller players here and there that are adding a lot. This week, the Center for Financial Services Innovation is going to have their Emerge Conference, and you're going to see a lot of people talking about innovation in markets and trying new things, and seeing how that shakes things up just a bit.

But the big questions in this space involve how will Big Data be used. Right? Can it be used for good? Can we find more information about segments and market to target better responses to those markets? Can we reduce friction in different areas where Latinos, African Americans, immigrants are engaging in the marketplace?

Can we create more tailored, affordable and safe products to segments, and can we ensure that there are no exploding toasters out there? Right? The big question for populations that we care about. So, regulations that are ripe and target real issues that we're seeing, from pay day to auto to title loans, to other things, are very, very important to our communities.

So, just to wrap up really quickly, these are issues, that of course, we care about. We care about the other issues, too. So, I just want to make sure that it's clear that there are large systemic issues that do affect consumers that are of major importance to our communities.

But our emphasis is on what's happening to consumers, and certainly, what's happening to segments of consumers that are important to the nation's future, and what is it going to mean? What is all this demographic change going to mean for players in the market and the way that public policy responds to those markets? Thank you. (Applause)

(Pause)

MR. ELLIOTT: I keep threatening to sing or something while we're waiting. Oh, I actually do a have mic. I guess I can do something more constructive -- far more constructive than my singing, I assure you.

(Pause)

MR. ELLIOTT: Perhaps, not surprisingly, given the way we've framed the panel, and I thought it was an excellent panel, so thank you all, in some ways it sounded like a list of complaints about financial reform. So, let me start by stepping back and asking each of you -- and you can either answer for yourself or for kind of the constituency that you deal with.

Overall, is it your feeling that the financial reform efforts have been mostly positive? Do you think the complaints outweigh the advantages? Kind of, how do you see it? And to the extent that you see negative aspects, do you think they're correctable, or do you think they're inherent? So --

MR. MUSIAL: When I think of this question, I think of it on a timeline. And I think, as I mentioned the first phase, we're very positive. I think ultimately, that Dodd-Frank had the right ideas in mind, and we created the resilience in the system, but we are now in this second act where you have multiple pervasions attacking the same problems. You have a spaghetti of a regulatory system that just needs to be rationalized.

I thought the comment about how you have FSOC and you have 10 regulators, and you have 1 regulator that needs to make a rule that Congress has told to make a rule, the other 9 are pushing them in the direction, and there's no accountability for them to do it.

And that's the paralysis that's being created in the market. So, it's time to declare victory that we're shored up the financial system, find good ways to accelerate what still needs to be done, and ultimately, begin to consolidate some of these three pronged solutions to a single problem.

MR. ELLIOTT: So, two drama questions. This is a five act play? (Laughter)

MR. MUSIAL: I was thinking of "Hamlet," (Laughter) but I'm actually stealing from George Lucas, talking about trilogies.

MR. ELLIOTT: They're usually five acts, so that's why --

MR. MUSIAL: Good point.

MR. ELLIOTT: -- trying to figure out how far along we are here (Laughter). And are we talking about a tragedy or a comedy here?

MR. MUSIAL: Well, the reality of life is there is a very thin line between the two, and it's yet to be seen. (Laughter)

MR. ELLIOTT: Okay, that's nicely non-committal (Laughter). Tom, in terms of the other corporate treasurers who are out there, is the overall feeling about financial reform positive, negative, mixed? Could you characterize it in some way?

MR. DEAS: Well, I think, Doug, in many cases, the full effect of these regulations hasn't hit yet.

MR. ELLIOTT: Right.

MR. DEAS: And so, for instance, the liquidity regulations for banks that will ultimately be passed through to corporate borrowers won't fully come into effect until January 1st, 2018. And so, I think everybody is in a mode of watchful waiting.

What I will say is, and what I was trying to convey is, good and bad are inherently relative terms. The problem that treasurers are facing is just the fact that the regulations are different. So, if you're the treasurer of U.S. based multinational company, you've got the Europeans requiring different reporting you for exactly the same transaction that the U.S. requires.

In some cases, for instance, the U.S. exempts most inter affiliate trades. The European require reporting of inter affiliate trades. So, we certainly support the transparency that's intended to be achieved through the swap data repositories and these other places where we're collecting pricing data and providing market transparency.

But the question is one of cost and benefit. The regulators aren't coordinating their efforts, and how we do that is, in many cases for multinational treasurers, very burdensome.

MR. ELLIOTT: Eric, you (Inaudible).

MR. RODRIGUEZ: Yeah, I mean, thank you. I think Aaron's chart I thought was quite good, in terms of the things that -- you know, there's broader consensus where we've made some great gains. But ultimately, you know, if you look at the regulatory market or the regulatory system as a whole, I don't think there are too many people who would say this is exactly the way I draw it up. Right?

I think it certainly needs to be improved in a variety of ways. But one of the fundamental changes which we think are so important is the CFPB. And I think the trouble that we have right now, I think from the consumer perspective to some degree, is where are we going to get innovation, right, to be able to free up markets and serve consumers better.

Is there going to be a new role with respect to how banks have played in this space or not? I think there are still a lot of questions about that. CFPB was supposed to be doing a little bit more in the innovation space than they are right now, but naturally, they're busy doing other things. And I think it's still a big question, how we get out of the political environment we are in with respect to regulation.

And I just mentioned a little bit about how populism is growing and what it's going to mean, and I just don't think we really know, around issues of income inequality or for -- I mean, for others, you know, really anti-corporate sentiment. And how is that going to manifest in a new administration and a new environment? I don't think we really know.

But I'm very concerned about where innovation is going to come from, because I feel like that's a really important part of the market of the future.

MR. ELLIOTT: I was really hoping you had the answers to some of these things. (Laughter) Well, I'm going to get a better next time, I tell you (Laughter). So, let me go through each of you in the original order, because I jotted down a few questions.

Tom, one is just a clarifying question. You mentioned 269 million, which doesn't sound like a lot. Did you mean billion or is this 269 million average per company? Or is it --

MR. DEAS: Yeah, it's the average per company.

MR. ELLIOTT: Yeah.

MR. DEAS: 269 million. And in our world outside of Washington, that's still real money (Laughter). And it's a direct subtraction of funds that each individual company would otherwise have to invest in its business. And then, when we extrapolate that to the S&P 500, we see the job effect on those companies would be a hundred to 120,000 jobs would either not be created or would be lost from that kind of activity. That's why it was so important to us.

MR. ELLIOTT: No, that makes sense. I just wanted to make sure we understood the number there. And you talked a lot about derivatives, and I appreciate your focusing in on something. But what -- are there other areas of concern for the corporate treasurers on the financial reform area?

MR. DEAS: Yes. I mean, in terms of funding and the requirements to be imposed, finally on January 1st, 2018 under these various liquidity rules for banks will result -- as an example, we are an issuer of commercial paper. We use that market to fund our business on a day to day basis.

If on a given day, just because of market illiquidity, or maybe we came late to the market, one of our dealers takes a market making role and buys some of that paper to roll it over, then there is going to be a requirement that 85 percent of the funding the bank used to buy that paper under the LCR rules and that stable funding requirements has to be long-term funding.

So, they're buying paper that yields 50 basis points with whatever -- you know, so the 10 year treasury is 240 today -- whatever premium on top of that the bank funds itself at -- that's the kind of mismatch. So, what you're going to find is that corporate commercial paper issuance is down because of this well intended, top down idea that banks should match the balance sheet that we talked about on the earlier panels.

MR. ELLIOTT: So, that actually ties nicely into some of the earlier discussions. Is it a concern of yours as a corporate treasurer, that (Inaudible) market liquidity issue that's been discussed? Because corporates is one area that -- of particular concern that's been expressed.

MR. DEAS: Liquidity is the big concern. I mean, as we saw both in 2008 and preceding that, with all of the warnings we had from long-term capital -- that event, it's liquidity, liquidity, liquidity. And what I was trying to describe in the derivatives market is that because of these different regulations, counterparties are solving for the least common denominator.

I will tell you that there are UK banks who haven't run through all of the hurdles to register in the U.S. as a swap dealer. That means that if we trade a derivative with that UK bank -- and this is a major money -- this is a major clearing bank in the UK that has failed to complete all of these tasks, then we are required to report the trade, whereas if it were with a registered U.S. swap dealer, that counterparty would report the trade.

So, because we're not fully equipped with all of the data fields -- the 500 something data fields to report the derivative trade, we're just not going to trade with that bank. So, that bank will have withdrawn its liquidity effectively from the U.S. market, and it happens in a way that I'm concerned can balkanize and segment into the smaller pockets of liquidity, where the counterparties are subject to the same jurisdictions. That's a concern.

MR. ELLIOTT: Okay, thank you. Scott, one thing that struck me, as you were giving your quite lucid presentation, is you seem to imply that banks exiting this business (sic) was probably a bad thing.

MR. MUSIAL: Yes.

MR. ELLIOTT: Why is that? Because presumably, part of what we learned in the crisis was that we had some organizations doing things that they shouldn't have been doing. Is it the particular ones that you saw where you felt that they should be able to do this, or --

MR. MUSIAL: (Laughter) So there are a few things. Yeah, the first point -- that's why I wanted to give the example of electronic benefit cards. In other business, we see banks exiting is checking cashing at grocery stores. So, the on bank -- you don't have access to bank branches. They won't have that type of access at stores. So, that's one tenant.

But if you just think of some of the other ones, we talk a lot about shadow banking. At some point, shadow banking is going to turn into mattress banking, because Tom's mentioned LCR. Like there are big slugs of money out there that no one wants anymore.

Money funds can't take it. Banks can't take it. And we're getting to the point that there is no mattress big enough in the world to hide this money out there. So, where does it go? And also, we talk about innovation, and this kind of dovetails with this. Right now, Silicon Valley is a budding cottage industry for payments and for also like -- if you think of Kickstarter in funding -- payments in credit.

So, in unintended consequences, some of this stuff gets pushed out into the fringes that is unregulated, and also, more concentration risk. So, another thing that we don't talk about a lot today, but just all that clearing banks do for one another. A lot of banks want to leave that business. You know, large banks clearing checks for other banks.

What's happening is, it's basically coming down to the fed, and maybe two or three other banks that process a majority of those checks in a way that wasn't like that 20, 30 years ago. So, we've created more concentration risk, more systemic risk.

MR. ELLIOTT: Okay. And then, Eric, I have a couple of questions for you, but let me start with the most basic, maybe most important. Looking out for the interests of the relatively underserved, how do you balance the financial stability risks with the sort of credit availability, service availability objective?

That is, certainly there are some who argue that maybe what you might want to see with mortgage rules might store up financial stability risks for later, but you might feel they're necessary for just making sure the credit was available.

MR. RODRIGUEZ: Mm-hmm.

MR. ELLIOTT: I mean, presumably, you want the exact right rules that work with the perfect balance.

MR. RODRIGUEZ: Perfectly (Laughter).

MR. ELLIOTT: But how do you think about achieving that balance?

MR. RODRIGUEZ: Sure. There are a couple of good examples. I mentioned one with respect to the mortgage program that we run, the Housing Counseling Network. Part of the reason why the network itself and pre-purchased housing counseling that's tied to a mortgage is so important is because what lenders lacked was information related to those consumers to properly assess their credit risk.

And the counselors were able to do certain kinds of activity that enabled them to have more information and mitigate any risk associated with those loans, to they were able to give prime loans rather than sub-prime loans. And that takes time. It takes energy. It takes resources. But ultimately, the proof is in the pudding in some ways.

A lot of the loans that were issued either to immigrant families or low income LMI families that had counseling associated with it had performed very well through the crisis. Right? So there is something associated with that, and that has to do with the ability to assess information and to assess clients in terms of their risk.

That tends to be very poorly done with respect to immigrants, for example, who are not necessarily in the system, or where you're collecting lots of information; enough to make that kind of assessment. Another way of which we're exploring right now is related to citizenship loans.

One of the high cost areas for immigrant families is applying for citizenship. But we know if you go through the process, right, you're more embedded in communities, you're more financially sound, you're more engaged. Can we issue small dollar loans that enable these families to go through the citizenship and legalization process, while at the same time, collecting more information on repayments that we can use and put them into the system to better assess the risk profile of these families?

So, there's different ways in which we can mitigate that, but that's an important challenge in markets, is making sure you have enough information. And as we talk about how Big Data is going to be used or can be used in the future to fuel innovation, carve up segments, supply different kinds of products, that's problematic for segments that don't have a lot of information, or there isn't a lot of information on them to be able to make that assessment.

So, there's a fundamental question in our minds about whether there's some kind of bias already built into the system. It doesn't have anything do with your risk profile if you don't have any information. But as a result, these are families or individuals that are automatically charged higher costs associated with the loans that they take out, just because there's no information. And that, we believe, is problematic.

MR. ELLIOTT: Okay. And then my second question, you either -- I think you outright stated, but you at least strongly implied, that at this point, credit availability is much lower than it really should be.

MR. RODRIGUEZ: Yeah.

MR. ELLIOTT: I just wonder, from an analytical point of view, how do you tell what it should be?

MR. RODRIGUEZ: Yeah, so well, I'll start and give you the example. Our network was counseling 60,000 per year before the crisis -- probably did about 3,000 in loans as a network of 45 to 50 organizations. We're doing half of that now, about 1,200 a year. Incredibly tight.

And again, these are a lot of families that go through a process, and ultimately are mortgage ready. The HMDA data, I think, reflects considerable tightening in mortgage markets. So, I think that is pretty clear in terms of where they are. And the question was (Laughter)?

MR. ELLIOTT: The question, I'm sure you are absolutely right. You can show there's been a significant decline in credit availability.

MR. RODRIGUEZ: Right, right.

MR. ELLIOTT: Is this moving to where it should be? You seem to be implying the opposite, that you think it's overshot.

MR. RODRIGUEZ: Yeah. And a large reason for that is because we have families coming through our doors for our community based organizations who are working with families who realize they are low credit risks, and should be accessing mortgages and prime mortgages, and yet, they can't.

MR. ELLIOTT: Right.

MR. RODRIGUEZ: There are down payment issues. There are other kinds of challenges in their local markets. There's much more community lending at the local level than at the big banks that are players. But fundamentally, we're seeing the customers, right, and their risk profile is very good. And yet, we can't get them access to credit.

MR. ELLIOTT: Okay, good answer.

All right, let me turn to the audience now. And you've all been terrific in the first two times, but let me just remind you of the rules. Please, identify yourself. Please ask a question, not -- you might get a little comment in. I know I did myself, but try to keep it as a question, and relatively short, if you could. So, anyone?

MR. JECKO: Thank you very much. Larry Jecko. This has been wonderful, by the way. It's been a great, enlightening morning. But we talk about financial reform as if it's a bolt out of the blue.

And it seems to me that when we do talk about, the only reason we're having financial reform is because of the misdeeds of banks. I mean, they don't want to play within the boundaries. And it's like we wouldn't need prisons, if there weren't people creating crimes. So, my question is -- and Eric, I work for Neighbor Works. I'm one of their (Inaudible), so I'm very much in tune with you there.

But you know, a lot of people in his community were absolutely, excuse the expression, raped by banks. And now, the banks are asking why we need more reforms. So, my question is, does the banking industry understand not only the fear that most people feel towards banks and the lack of trust in our financial institutions, but how angry we are? Thank you.

MR. ELLIOTT: Yeah. I think we're probably going to have to skip that one. And the only reason is, none of the people up here are bankers.

SPEAKER: No. All right.

MR. ELLIOTT: So, I'm sorry about that one. Burt?

SPEAKER: Burt (Inaudible), banking consultant. This is a question for Mr. Deas having to do with derivatives and the clearing houses.

To what extent are you concerned and your peers concerned about the potential for clearinghouse failure? I know that there's some concern about regulators, but is that something that you and your peers in the corporate treasurer's association have expressed concern about, or have concerns in terms of how the threat of clearinghouse failure might become more evident, and that there might be regulatory actions to prevent clearinghouse failure?

MR. DEAS: Well, thank you. That is a concern, and that's one of the drivers behind our desire not to have mandatory central clearing of our derivative positions; instead, to do that with a bank -- largely bank counterparties we have, where under the standard form agreement we have for those derivatives, there is a right of offset.

So, to the extent we borrowed money from the bank, we owe the bank on a mark to market of a derivative position, then, we can offset those. That's why we're very anxiously looking at another topic from this morning's earlier panel on bank resolution, because we think that we have a place in line in that there's this agreement to net. But if that's not respected in the resolution process, then we have to repay the bank a hundred cents on the dollar for the loan that we have obtained from it, and it pays us zero cents on the dollar (Laughter) or ten cents on the dollar, ultimately, in the liquidation of its derivative position with us.

MR. ELLIOTT: Okay. Other questions? Martin?

MR. BAILY: So, this is a question for Eric. You're saying that you have mortgage ready households that can't get mortgages. And I'm assuming these are from the Hispanic community.

Is it their ethnicity? Is it a lack of citizenship? Is it that they don't have established credit records? I'm wondering. Now, I know there are people who don't get mortgages. Our friend, Ben Bernanke famously tried to (Laughter) re-fi his house and didn't. So, there are certainly some situations.

But give us a sense of what it is in this community that makes it so difficult? Or is just that the banks are so tight that they won't lend?

MR. RODRIGUEZ: Yeah, well Ben should have gone through Housing Counseling (Laughter). He would have had a better chance. I think it's a combination of things. Certainly, the increase in documentation is out there. It's understood why that's important.

And families who have documents and documented employment histories and et cetera, have to come through the door. I think it's the proto -- in some ways, it's the prototypical, you know, family. They're working hard. They have good income. We can document that income.

We're looking at what available products are available at the local level, and we still can't either meet one of the threshold criteria, whether that's down payment assistance at the requisite level. So, I think there's a number of issues out there, that it's not the issues that we were dealing with before.

I think in terms of exotic products, no dock loans, I think it's just a different kind of situation now. And there is a lot more, again, documentation and availability for -- on the immigrant side, of course, because of deferred action and because of a potential legalization program or a great magnitude. More families are gathering documents, you know, preparing the process and positioning themselves for engaging in that process.

And so, that doesn't feel to me -- and it's certainly not the experience of our folks as being the issue. It is, really, the types of products and available support at the local level.

SPEAKER: What would you like to see specifically change? Are there are one or two things that would help a lot?

MR. RODRIGUEZ: Well, I'd like to see -- you know, I keep coming back to innovation, but I think there's plenty of room for banks and credit unions and others to, I think, look at various markets and segments that are not being served. I mentioned the ability to bring -- if you bring in more people outside of the financial system into the financial system, you start to gather good information and a payment history, which we think will ultimately be important as a long-term matter.

So, I think the question is, how do you do that? A lot of folks are talking about, for example, smart phones and mobile, and what's that going to mean for the future? What we know from looking at our communities is that they're not quite engaging in financial transactions just yet.

So, I think the question is what do we need to do -- what we can do with financial partners and others to be able to create more innovative pilot projects, to be able to figure out how we tackle some of these big challenges with respect to information, assessments and the connection to really good either bridge products, or ultimately, affordable products that bring them into the financial mainstream.

MR. ELLIOTT: And is there anything on the regulatory side at this point that you think needs to change to help make that happen?

MR. RODRIGUEZ: Well, one thing I would about that is, you know, we've certainly had a fair amount of conversations. We have financial partners, as well, with our programs in the fields. And I think for all of them, the issue is regulation. Right?

And to some extent, it gets hard to discern at some point what is real and what isn't in terms of what a bank is willing to do and invest, which is why you can tell -- they're not all the same. Right? Some credit unions are doing very, very interesting things. Community banks are exercising a bit more flexibility at the local level.

But then, the question is how do you get that to scale? How do you get into a way that affects more trends in the marketplace? So, we still have those kinds of challenges. But I think some ability to discern -- and this is why it's great compliment, what the BPC has been able to do, to bring folks together to try to identify and lift up the actual issues that are taking place in reform, and be able to identify what are the regulations that are really causing problems, and problems for consumers just as much as anybody else. How do we fix those, right, versus every problem is a regulatory problem that needs to be eliminated?

MR. ELLIOTT: Other questions?

SPEAKER: Hi, Toshitma. This is for Tom. Tom, as you think about FMC, big global company, you know, complex needs, balance sheet, et cetera, you think about bank size, how do you guys think about how you want to do business with -- or would you be better off with more medium sized banks or fewer smaller banks? How do you think about in this whole too big to fail?

Because there is this element of large corporations and what they need that is quite different from what most of the rest of society needs?

MR. DEAS: Well, I think because we are a large multi-national company, having banks that can meet our needs in multiple countries is important. But there are plenty of banks who are quite willing to provide their capital with very little ancillary business coming back their way.

I think there was a time when Japanese branches in New York were providing up to one third of the corporate lending. It's less than that now, but they're still very active. They will be the first to tell you they can't process your checks or provide other cash management services. But they do have branch networks elsewhere in Asia, and would be happy to help in that regard.

So, it's just a mix of banks providing credit and non-credit services in a balanced way that meets our needs. What I'm concerned about is when Basel III is fully implemented and the reserve requirements and the capital requirements are fully there, that there will be this continuation of banks withdrawing from business segments, so that they really can no longer do anything for you except perhaps, lend money, which they will not do alone.

MR. ELLIOTT: Before I forget, when we finish with this panel, don't go away. Martin's going to tell you where the food is. So, are there any questions? Yes, in the back there.

MR. SAMUELS: Bob Samuels in the *Washington Post*. This is for Mr. Deas. I watched you a bit on your example where the imposition of the (Inaudible) requirements was going to impose a cost on your commercial paper. Do you want to just go over that again?

MR. DEAS: The concepts behind the capital requirements for banks -- and let me just that Doug talked about is this Shakespearean play we're in. I think it's really a Roadrunner cartoon (Laughter). And the corporate treasurer is the coyote who falls off the cliff and makes it to the bottom. But then, he looks up and the cliff edge is coming down on him. (Laughter)

And for us, that cliff edge is that we may have been exempted from some of these direct requirements to say post-cash margin for derivatives. But where it comes back is through capital requirements on banks that they then have to charge, when they engage in those services with you.

So, the capital requirements for a bank acting as a commercial paper dealer requires that if it buys commercial paper, even overnight from one of its corporate customers that it's taking out into the commercial paper market, then it has to hold long-term funding against that amount that it buys.

So, this commercial paper that I'm talking about, maybe it's paying 50 basis points, but the bank has to go and fund that 85 percent of it under the LCR rules with long-term funding. And I cited the recent 10 year treasury quote at 2.4 percent with the spread that the bank earns on top of that. Let's just round it up and say that it's going to pay 4 percent.

So, it's almost a factor of 10 or 8 or 9 that the bank is going to pay over and above what it's earning on that instrument that it buys from us. So, what we're going to be faced with is that commercial paper dealers will no longer facilitate the placement of our paper through an occasional overnight purchase. They'll be -- it's way too far under water for them.

SPEAKER: Yeah, Bob, if I could expand on that a little bit. Basel III puts in place two sets of liquidity rules which didn't exist before. Liquidity coverage ratio and a net stable funding ratio.

The net stable funding ratio calculates -- effectively, what Tom was doing was carrying that down to the individual transaction level. So if you do that, it says you calculate your total net stable funding ratio -- the total net stable funding that you're required to have -- you calculate that based on looking at each of the assets, and looking at what you would need to back them, according to these rules.

If the net stable funding ratio is calibrated so it's binding on the bank; that is, it's at a point where it has to worry about, because some banks will have a margin for error, and then, they won't need to think of it so carefully, then there's going to be a tendency to take that down to the business line level and say if you're going to be doing this business that has this net able funding requirement, then you better earn enough to pay for us to get that funding.

So, I think there are a couple of steps that would have to be true to go all the way from the top to the transaction level. But there is a chance it will happen. And certainly, for some banks, they will carry it through that way.

Then if they do, it's exactly as Tom was saying. It's as if the regulators, in those cases, had flat out said you have to go borrow long-term to fund this overnight. And that's expensive.

MR. DEAS: And we work with banks on that very question. When you're dealing with those costs, do you apply it at a business line? Can you apply it to the individual customer, and ultimately, do you bear the cost or is that (Inaudible) back? Like those are day to day conversations I have with banks today.

SPEAKER: Yeah, and part of it -- because these haven't fully come into place yet. We don't know whether most banks are going to find they've got enough margin for error that -- enough net stable funding in general that they don't have to get that picky about it, or whether this really is going to be pretty binding, and will end up having real pricing and availability effects.

SPEAKER: And then numbers I'm citing, it's roughly an order of magnitude difference, so --

SPEAKER: Yeah.

SPEAKER: -- I mean, they may not take it all the way down. They may not have their calculators for eight decimal places, but it's going to mean they are less able to do that trade that they would have done readily, before the imposition of these new rules.

SPEAKER: Yeah. I don't think anybody would argue about the direction. What we're still collectively trying to figure out is what the magnitude is and what segments it will play out at. (Inaudible) question --

SPEAKER: It's (Inaudible) again. This is for Eric. Eric, you talked about innovations, smart funds, a lot happening over there. But the segment that you're talking about hasn't really embraced that yet, and you touched upon that.

What needs to happen to get much more at option and change in behavior?

MR. RODRIGUEZ: Sure. It's a good question. I think one is that we need much more information on usage and purposes. And then, I think we need to deal with an address. Quite frankly, one of the bigger issues around confidentiality of information and use for a particular individual, certainly if they're doing and engaging in transactions of any kind, whether that's commercial or any kind of banking that's done over the phone.

And we haven't quite been able to get over that hump, at least for now. I think some work is going to be needed before we do. But I mean, we're already seeing lots of different interesting and innovative apps being created for the purposes of trying to introduce new segments to different kinds of tools via your phone.

So, I think we'll pay a lot of attention to that very, very carefully. But ultimately, some of these confidentiality questions are quite bit ones for the community that we represent.

MR. ELLIOTT: Okay. Please join me in thanking our excellent panel. (Applause) Thank you for joining us.

SPEAKER: Thank you.

MR. BAILY: Thank you very much. It's always a little bit tricky if you have a conference that runs through lunch, but we do have a free lunch. It's delicious. It's across in January, and we have until 12:45. Please, do come back at 12:45. We've got Greg Baer, managing director of head of regulatory policy at JPMorgan, Cyrus Amir-Mokri, a former treasury official now at Skadden, Arps; Asheet Mehta, who just asked a couple of questions who's head of banking in McKinsey, and best of all, I'll be moderating, as well (Laughter).

So, please return at 12:45, and I think we'll have another really great panel. Thank you very much.

SPEAKER: Thank you. (Applause)

SPEAKER: Oh, and January is a room. It's not a month (Laughter). It's just down there (Laughter).

(Recess)

MR. BAILY: If folks could take their seats. So our final panel is at least at the level of the previous ones. We're going to start with Cyrus Amir-Mokri, Cyrus was in the Obama administration and is now a partner at Skadden, Arps. He'll be followed by Greg Baer who is head of regulatory policy at JP Morgan and then Asheet Mehta who is director and head of banking at McKinsey. So why don't we start with Cyrus, thank you.

MR. AMIR-MOKRI: Thanks very much Martin and thank you everyone at Brookings for hosting this. It's been a fantastic day, really privileged to be here. I thought maybe what I'd do is kind of like Peter Fisher, I will take a very broad view of the future of the financial system. I was recently at a conference where I was talking to a couple of asset managers and one of the things they said about – we were visiting some high technology in another country.

The government is building a very fancy place to encourage start ups, the formation of startups and we were talking about whether that will work or it won't work and I said there is really, really no way to tell. Things happen for strange reasons but I think that there are certain things that we can point to and at least this is how I think about it and I thought I would go through them. There are certain secular changes that are occurring that I think will affect the financial system and financial institutions. There are certain constants that I think some of them are very simple but it's good to be reminded of them. And last we shouldn't forget that we have affirmative choices in every generation to make both to adapt to the secular changes and also maybe manage some of the constant. Let me go through these really quickly. In terms of the secular changes I'll point to three. I think one – in many ways the most obvious one is technology and it's one of my favorite examples of how to think about technology – the 1975 amendments to the securities and exchange act which mandated a national market system and I think it would be fair to say that when Congress enacted those amendments little did they think that 30, 40 years later proximity of a computer server to the actual exchange would be a very significant regulatory issue.

I mean the nature of transformation in trading, you are all familiar with the high frequency trading and algorithm trading debates has just been extraordinary but even more than that when you look throughout the business of financial institutions you see that in every corner emerging technology. Folks in Silicon Valley and elsewhere like to call it disruptive technology. Seems to be making it's mark. In the asset management business there are apps that purport to give you advice on what we are – give you information about the history of stock performance and what might be an ideal portfolio given your risk appetite and what you already hold and how much fun you have in the retail consumer business generally or financial institutions are reporting the uptake on mobile connectivity and so on and so forth. It's all over the place and we have to clearly take technology into account. The second is demographic change. And this to me manifests itself in at least two significant ways.

One is the emergence of a new generation with new preferences, with new ways of wanting to connect with the financial system and even having views on what type of financial institution they want to connect. I think it's far from clear where this is all headed and much of that depends on how financial institutions respond to this demand. It depends on how strong the demand is but I don't think we can overlook it.

The second component of the second factor is just retirement needs. And this is not something that is unique to the United States. Japan, China, Russia, Western Europe, United States all have an increasing, aging population issue to consider. And it's not just the number of people but also the extension of life. Biotechnology is probably going to make lives longer and the quality better and how do you think about that? How do we think in terms of investment, in terms of managing investment, growth, so on and so forth. I heard the second half so I don't know if I can make a proper attribution but someone said that it's entirely possible that the first person to reach the age of 150 has already been born. And so when you think about it that way how a financial system and financial institutions manage their obligations becomes very important.

The final thing is obviously globalization. Globalization in the early days of Breton Woods certainly had a much more constricted definition than what it is now. Now we have to deal with phenomena like migration, mass migration, whether it's climate change, whether it's civil war failed states, what have you, but also many, many common interests. I talked about retirement and needing to invest in stronger economies, faster growing economies, you name it the complexity of the inner connections and the need for capital flows is greater than ever. And the commonality of the problem that societies are facing, so even though there seems to be especially after the crisis a turn towards artochy it seems that technology and other needs are going to keep the pressure on and we need to remain global and think that way. So what are some of the constants? I think I'll mention three here too and none of these should come as a surprise.

One is the remarks made earlier tonight and I agree with them that we seem to want to risk out of the financial systems. The basic of financial intermediation and financial activity is taking on risk. Someone has to take that on. With that goes phenomena like asset bubbles and speculation and what have you and that's just going to be a constant. It's going to – it was mentioned earlier today that a credit crisis of some kind if going to happen at some point in the future. We all believe that that is going to happen, we don't know when and how and where but I think it's a reality. It just follows from not being able to price things perfectly.

A second constant and this we forget about, is that there are different function. Even though we've had a lot of developments in the world of Fintech even though people get really excited about new ways of interacting with the financial services system at the end of the day someone has to hold the risk, someone has to make a balance sheet available whether that's at the institutional level or a personal level. I think Peter Fisher was talking about that in a sense when he was talking about how the volatility mismatch has to be dealt with, you have liabilities on one side, assets on the other and you try to – but risk has to sit somewhere and we're not going to be able to – a lot of what we talk about in Fintech seems to me to be about distribution, not necessarily the actual function of financial intermediation but that is a constant.

As forms change, as forms of financial intermediaries change it may be harder to keep track of and I want to get to that in a minute, but we should always remember that. And the final thing is I think the attribute of the human condition which is fraud, negligence, things like that aren't going to go away. And as they apply to -- just think about it terms of the expansion of technology and the improvement of technology we are going to have to develop systems that would be better able to detect fraud of kinds that we haven't seen before but also of mistake.

In the past few years you've all read in the paper reports about exchanges going dark for 10 minutes or five minutes or what have you. A flash crash in 2010, a flash crash in October of last year, these are kind of minor forms of it, there could be really devastating forms of it, so that constant now appears in a new context and that's something that our financial system and financial institutions need to be really prepared for. And that leads me to a discussion of choices. And again there are many ways to think about the financial system and financial institutions but I want to leave you with a couple of thoughts, especially as we are witnessing what may be a real technological revolution in financial services. And that is we could – first of all consumers have a lot of choices to make, just an example of that is as much as big data for instance can help consumers have access to different products, learn more about themselves, customize things better for their purposes there is always the issue of privacy and how much does an institution know about me, how much can it predict about what I like and are people comfortable with that. Those are one set of choices.

Another set of choices is – and this is an important point is what I would call centripetal versus centrifugal choice. One of the things in the aftermath of the financial crisis we tried to do was to make sure we had a regulatory system that had a view into every corner of financial services. We wanted to know more about the shadow banking systems, defined in my diction, personal dictionary as institutions that aren't formally under the traditional safety and (inaudible) regulation of banking.

As we think about the interconnectedness of financial institutions, again earlier today we were talking about how financial activity can migrate, we need to try to make sure that it doesn't go to a place where we can't see. Or that we don't have parallel financial services. You can see that very well not only with geopolitical issues but also with some of the reactions to the constant tension that there is between regulation and then activity migrating to other forms and other means. We need to continue to be conscious of that. And for that I think we need to, especially in the world of technology, think of phenomena like crypto currencies or bit coin just by way of example in the seminal paper on bit coin one of the claims that was being made was to develop a payment system that doesn't require the presence of a trusted intermediary rather it's some settlement system where I don't even purport to understand how this would happen, but how this can be put to effect, but you have a settlement system where computing power and just even in the face of dispersion everyone can see when a settlement occurs, but this is very, very different from the current model that we have.

It may allow the creation of multiple parallel currencies even under one sovereign so these are I think the centripetal versus centrifugal issue I think is a very important issue. A lot of the trust and confidence that we've had in the financial system traditionally is going to be dependent on the choices that we make in this regard and so again how we end up along these lines and in the fact of these challenges who know but at least it would be important to keep all of these in mind as we go ahead and make the choices. Thanks very much.

MR. BAER: Okay, thank you very much. It's a pleasure to be here this afternoon. I'm honored to be at Brookings with such esteemed company. I'm going to use a PowerPoint presentation so I'm hoping I can do this correctly. Here it is. I think the first panel today did a terrific job of framing out that we are in very interesting times both in terms of financial markets and financial markets regulation with a lot of very interesting trends going on and with regulation playing some role in that. What I'm going to try to do is illustrate some of those trends quite literally because I have pretty pictures to do that. But before I do that I did want to pick up on one interesting set of comments that came out of the second panel which I think is really important to understanding what's going on. And that is I think there is a common misperception that as you increase capital liquidity and other types of requirements on banks that that is somehow value neutral and agnostic as to asset class. And basically what happens is the banks hold the two to three times more capital or whatever multiple it is of liquidity, it's more difficult to measure and perhaps there is some cost to that economic other. Basically the business stays the same.

And I think what the second panel began to get at and I think I will get at more is that that's just incorrect. That a phrase you hear a lot when bankers are talking to investors and analysts that you don't hear so much in the policy world is binding constraint. And what's the binding constraint for your business and what firms do is they take these costs – capital liquidity and they allocate them out to the business which someone was mentioning on the last panel and they make them earn that back. And to the extent that they can't earn that back then they don't do that business anymore.

And there are multiple examples of this, some of which I'll show you or they shrink the businesses. For example if you impose a leverage ratio capital requirement and make that binding on some folks, that tends to disfavor low risk assets because all assets are presumed to hold the same risk and carry the same capital. For example treasury securities become a much less appetizing asset. Similarly if under liquidity rules you presume that any line of credit is going to be drawn 100 percent and you have to hold a high quality liquid asset to fund that departure while you tend to get less standby letters of credit.

At our institution we announced publicly last quarter that we would be reducing non-operational deposits by 100 billion dollars. That is deposits from corporates and that was for a variety of reasons including the interplay of a series of regulations. I think we'll see that more as we go through here. I thought I'd start just at the beginning by noting that I thought it was kind of interesting, I just came back from Europe last week, that they are having a very interesting debate in Europe where while I think in the United States there is a certain amount of nostalgia for bank lending and a certain stigma attached to capital markets the Europeans feel exactly the opposite.

They feel that markets there are over aligned on bank lending and that they need to develop capital markets and have now through the capital markets union embarked on that enterprise. Also, although I am going to focus on capital markets, I did want to give a shout out to a recent piece published by Goldman, Sachs which focuses much more on the banking side of the book. And their observation is that while there's been a slow recover in business there has actually been a normal recovery with regards to large companies which have access to capital markets funding and a relatively and unprecedently slow business, slow recovery for small businesses which tend to rely on bank credit.

And you'll see here some of the increases in the price of bank credit. With that I'll leave the bank side of the book and the retail side and move on to wholesale. This is an overview of what's going on in fixed income markets and fixed income liquidity.

And it's a very complicated picture much of which has little to do with regulation. The first – the good news part is the issuance has actually increased over the years in the United

States partly because it's in the current interest rate environment a good option for folks and then also because the U.S. is still seen around the world as the place to issue. Also trading volumes have maintained where they were. Partly attributable to algorithmic and high frequency trading. But no bad news there. Sorry I've got a little bit of a cold. The next is a natural outgrowth of the crisis which has been influenced by regulation but not driven by regulation and that is the dealers which tends to be the large banks to the United States are showing a diminished risk appetite and sensitivity to liquidity. I think that's because the capital markets that we're using are incorporating not crazily, uh losses from the crisis and therefore tending to generate more losses. There has also been an expansion in the number and types of risk limits. Basically to capture more risk. The next development is in asset management – a larger percentage of assets are being held by the large asset managers which creates a new type of buy or sell risk. The next trend is I think a more macro trend which is investor herding. That is there are studies showing that the correlation of trading among fixed income funds is higher than with regard to equity funds. Folks tend to get in and out of positions more frequently. All of this independent of regulation. The last phrase you see or the last bullet deals with regulation.

And it shows that as a result of LCR, LCR GSIB (inaudible) banks are shrinking their (inaudible) trade sizes have generally been reduced, there is no one definition of liquidity, but a good measure is how much of a size of a trade moves the price and that's definitely increased. This is just a measure of risk appetite investment banks, I would just look at the black bars which tends to show value at risk. And this is only over the last two years, so it basically shows banks taking less and less risk. Here I'll just point you to the headline here, which is if you look at what percentage of the total market dealers are holding its smaller and smaller and now represents only .25 percent with regard to high grade and .4 percent high yield.

So in terms of the depth of the market that is the ability of dealers to absorb warehouse laws, that amount has gone down considerably. This next slide could be a whole conference in and of itself. I think it's another ripple effect of regulation and what's going on in markets. And this reflects money market funds. What you see in the green is the demand for money market assets which is steady but the blue line is the supply of money markets assets. What has happened is as deposit have migrated to money market funds and they continue to demand a significant amount of assets in order to invest in, on the blue line however what you see is that largely for capital liquidity reasons banks are issuing less debt that can be invested in by money market funds.

You have a significant supply, demand and balance. What's meeting that current imbalance is actually the Feds RRP program where the Fed has effectively become the borrower of last resort. Just going to talk very briefly about the repo market and what's going on there. It's clear that through the crisis the repo market was playing too large a role in financing as it was not necessarily the most steady and resilient way to fund a securities business. Clearly there was a need for the repo market to shrink in the wake of the crisis and that has obviously occurred. The market liquidity effects though are not insignificant because in effect repo is how the dealers fund a treasury portfolio. What this shows is really the rather strong correlation between repo balances and bond trading volumes. So in other words as you can repo out less and fund yourself you will trade less and volumes will go down. And here's sort of a broader look at how those things interact. If you look at the effects of regulation, this would include the supplementary leverage ratio, liquidity coverage ratio and still to come a variety of capital and liquidity regulations all of which will drive down repo balances further, both in the U.S. on the left hand side and Europe on the right hand side. This is I'll just skip, it shows basically the way you do a market making business and that the costs here are not insignificant. If you look at cost and caring a position of course are significant and your funding and borrowing costs are significant. This is just another expression of how those costs have risen across different products. This is just one quick note, switching gears a little bit on liquidity rules and what it means for balance sheets and others balance sheets. I would direct you mostly to the top left where it shows if you look at how much cash the largest banks and I think here its 50 billion and above are holding.

As of '06 that was 16 percent of their balance sheets in cash and it's now 30 percentish. Of course that results to some extent in a correspondingly less amount of loans, lower amount of loans and other assets. If you look at the bottom left you will see corporates now are tending to hold more cash and bottom right you'll see actually asset managers are pretty steady and I think one of the great debates coming in regulation is whether that's going to remain steady or whether regulation is going to require them to increase that.

Also top right I think it's kind of interesting to see the divergence, the black line being the largest banks and blue line being smaller banks. That you see large banks largely because they are the banks doing the capital markets activity, markedly increasing their cash holdings vis a vis small banks. I'll admit this is sort of an anecdotal and I'm sure incomplete look at my last slide, which gets to the sort of voting with their feet test.

And what this is a look at is exits, at least public exits that have been announced by companies from capital markets businesses. And then on the right side their stated rationale which we have to presume is accurate since they are making it to the markets. It's a fairly significant list of departures some more across the board, some more targeted probably an (inaudible) Bank giving their announcement today so we'll see where that goes, but I think it's fair to say and I think this came up in one of the earlier panels that

there is certainly a regulatory push probably more so in Europe than here even. But to rationalize some of these businesses and get out of some of these businesses.
Of course at the same time we may also be hearing concerns about concentration in these markets, which of course if you are concerned about that then this is not a good development. That's all I have.

MR. MEHTA: Okay, last and I recognize that it's me and then the panel, then we are all off, so I'll try to be quick. But thank you very much Martin and Brookings for hosting us and it's quite an honor to be a part of this panel. What I'll try to do in this presentation is try to summarize and just build on what the previous panelist have spoken and try to tie things together.
And the frame I'll use and I think we talked about this essentially was how do we have a safe and sound banking system and do that without any unintended consequences. And I think a lot of the conversation we talked about earlier around that, access to credit coming down for a set of retail customers. Tom talked about the difficulty and what he's going to see in the commercial paper market of derivatives netting and some of the unintended consequences. So let's just frame those out for the conversation afterwards. I will just put this quote up as a backdrop before I start from two illustrious leaders in our country and let you read those. Let's focus on whether the industry has become safer or sounder. And this shows total chair one capital in the U.S. banking industry so clearly from an increase in capital perspective there is no doubt that the industry is safer. You know, (inaudible) would stand pretty significant losses in a stress situation so we should feel good about that.
But is it sounder? And this shows what is the banks cost of equity, return in equity or cost of equity and you see where the last several years it's been quite a bit below the cost of equity. A few things to keep in mind. Clearly as a result that capital has

increased as the (inaudible) come down for the industry. It has, but not sufficiently enough.

And this is all part of the present too is talking about how banks have done and talking about what banks were the unmitigated or unmanaged outcome had been because of new regulations and then how – what do we see on the customer lens. But this quite well could be the inflection point for the U.S. banking industry. These are 2013 and 2014 estimates. I think what we'll see when the final 2014 analysis is done which we'll have done by the next week or so will show that 2014 was actually a year of record profitability for the U.S. banking industry in terms of absolute dollars of profits and returns close to the cost of equity but not quite yet at the cost of equity is the early read of the analysis that we've done. Significant variability by banks absolutely. But getting to the point of a sound banking system but not yet one there. Having said that and we've heard a lot of things earlier today about all the problems with the industry but this well might be an inflection point for at least the U.S. banking industry. I don't think that's true in western Europe, but I think there is still a lot of headwinds.

I think if you feel that the worst of the find, et cetera are behind that a lot of the regulating compliance burden money has been invested while there is more to do, there is probably some opportunistic streamline those investments. You could see a situation at least as an (inaudible) we could return some point soon that equal or are greater than the cost of the equity in the U.S. Like I said not true globally. You know, there is also this question of does size matter or not and given the burdens of compliance et cetera.

And what you see we are returns that are pretty much all over the place, not that correlated to size. The interesting thing and Martin asked me this last week, is that you've heard a lot about the compliance cost being quite crippling on the smaller banks and at least for some of the smaller banks I looked at which are just here as dart points that have done quite well have a quite differentiated business model. They do have a unique value proposition. They focus on the starting segment and they know how to do that extremely well which allows them to earn excess returns but a fairly undifferentiated business model, small bank, compliance pressures, hard to make the economics work. At the same time you also see quite a few banks that are quite large and have returns well below the cost of equity. Not many of them turned by one time issues like fines and taking one time charges to restructure, et cetera but having said that there is at least, at this analysis and last year's number hard to see a perfect correlation between size and returns.

Over all I think what we take away is I think it's a safer system in the U.S. that we have so far, what you take away from the slide so far and some it's not quite there but if you believe what I think could happen in the future we may be getting over there. Here's what – if banks had done nothing what would happen in the impact of the regulation. We did go to the historical ROE of 11 to 12 percent and you add the different cost imposed by RW increases and increase in capital ratios, et cetera you get to an ROE after about a rate of lower eight percent which would be definitely below the cost of equity, even with a higher capital standards, I think you do equity cost for the U.S. banking industry of somewhere between nine, nine and a half percent maybe closer to 10 based on the business model the bank has. So what is it that banks, we are only starting to see returns of this, they certainly had to make a set of choice about what businesses they want to be in, I think we heard that earlier.

They are exiting, they are shrinking, they are not serving certain segments. We put forth the balance sheet earlier, put a little granularity on it this is bank balance sheets as of the fourth quarter of 2013. And some pretty important differences that you see that focus on numbers in parenthesis, the percentages because those are the changes from where they were over time versus 2007. The first is on the liability side.

If you take a look the equity has gone up dramatically 85 percent. Typically that would be something that would bring returns down. The other thing I would say is commercial paper, we've talked about that, and the funding using that has gone down dramatically as well. You are seeing that. And then when you look at the asset side here is some of the other things that you are seeing, you are holding less corporate bonds and an interest rate 30 percent less and mortgages have come down by about 10 percent what they hold on balance sheet. Starting to see some real significant differences in what banks are holding on the balance sheet directly rated to the kind of business, they are willing to do versus what they used to do pre-crisis. That is certainly one of the ways that they managed to get, start working on how to make a business model, economic model that makes sense in this regulated environment and these are some of the consequences that we are seeing played out with the end customers or the big corporate small business or retail customers. Let's take a look at the customer view which this is a bit of a complicated chart so let me explain this to you.

What we have done is taken the U.S. and broke it up into five different customer segments. Starting with the lower mass these would be customers with less than 50,000 dollars in balances including credit so all products added together less than 50,000.

And then we got the mass market, mass affluent and high net worth. And then what you see on the top is what are their total balances per household as well as in the dark blue what is the total profitability they generate per household. What this shows is if you look at the lower mass, the 0.5 that means that the lower mass market household generates 500 in profitability per household across all of these products.

If you take a look at the deposits part at the very top sliver on the bar – the dark blue it says that's three percent. If you have a 100 percent wallet share of that customer as a bank you can expect to generate about $15 in profit per household. Okay? And then you can see how those numbers changed. The first thing you should take away is that the profit that banks make or financial service providers make with the lower mass and the mass is a lot more on the credit side, while as you get richer it moves more towards deposits and even investments. Not surprising. This has a whole bunch of consequences. And you take a look at some of the regulations what impact it has had you clearly see a lot of lending once again because that's where the profitability is in the lower mass and the mass when they got in the banking industry. Because attackers see that as that's where the money is and they are willing to serve that but you don't see that much on the deposit side. No surprise, not a lot of profit over there. And you know Durban is an example one of the unintended consequences on interchange regulation which was a source of profits from the checking accounts for all customers but surely for the lower end customers where it did generate a fair but hefty interchange. Clearly the merchants were not happy about it and they didn't think they should bear that burden and as soon as that subsidy went away what you really see now is that amongst the large national banks you see that second bar, second row there, free checking has essentially gone away. And so this would be an unintended consequence of regulation that really focused on one segment, that was otherwise served clearly by interchange which merchants may say they subsidize but there was a revenue stream which has now disappeared and this is one way that banks have started acting to get returns bank above cost of equity. This shows what's happened at a number of unbanked and underbanked households. And what I'd focus on really is the dark blue bubbles on the bottom right? And as you see that has gone up from where it was pre-crisis, 25 percent versus 28-ish percent now. The number of unbanked and underbanked has gone up dramatically, or a fair bit I would say, as a result of this. This is the other thing you should take away and once again or at least in no small part a consequence of some of the regulations. There are issues about trust in banking and how customers feel they were treated by banks and all those things contribute clearly as well.

You certainly see this in the numbers, pushed out of the banking system, whatever reason that may be. So what's happened that per household has gone down? This is once again for the lower mass segment less than $30,000 in income in this instance and more importantly access to credit. This is done by FICO score and as you see what's happened in the subprime and even the near prime compared to the prime is you see for quite a few products those segments have been hurt disproportionally hard and we've heard that from Eric earlier about what's happening to mortgage applications in through there organization and there are – this is what you are seeing throughout the country so that is not surprising.

I think safer, getting to be sound, banks are taking quite a bit of actions to restore profitability. It is having some unintended consequences or maybe we knew about this ahead of time or should have known about it, but there are certainly certain segments that are not being as well served as they were and regulation could be one reason. There is also other reasons for it that you should see. And there are things like innovation, we heard about that, that – but it's not really making it meaningful then. And I'll close and we can talk about this a little bit more is what need to happen to allow banks to get back into their purpose which at least I would frame as helping start and grow businesses and facilitating commerce which is saving, borrowing and payments and what do we have to have in place to make sure we have a safe and sound system that allows banks to provide that service? Thank you. (Applause)

MR. BAILY: Well, thank you all I thought that was terrific. I'm not going to follow Doug's lead and insult my panel. I'll say they were a great panel. Cyrus let me ask you you were fairly intimately involved in at least aspects of Dodd Franco the Treasury white paper that lead up to Dodd Franco together with several of our mutual friends have the consequences been what you had hoped they would be or not?

MR. AMIR-MOKRI: In many ways yes. So you started with the transition white paper proposed legislation, when you step back here are the things that we tried to achieve. One was to create a safer financial system. And in that respect just picking up on a couple of presentations we just heard right now, there is much more capital in the system so that was an important aspiration and that has happened. We also wanted to put together basically a framework through which we could resolve large financial institutions if we went into trouble. And we have certainly put that together. We also wanted to create a regulatory structure that would bring all the regulators together so that we would have a view of the entire financial system and not have it be disjointed. We have certainly achieved that. We wanted better consumer protection and we have an agency that's doing that. That said the legislation is complicated, the subject matter is complicated and I think the way I would put it is regulation needs to be dynamic and I think that you've heard people like Secretary Lightner and Secretary Liu say this as well which is regulation is not just something you do at a certain moment in time and then you wash your hands and say okay we're done. You constantly have to reevaluate because nobody is clairvoyant and you have to go through the exercises that Greg and others were suggesting. Take a look at what's happening, what need refinement, what needs tweaking and then have a sensible conversation around that.

MR. BAILY: Let me press you a little bit around that, which I agree with a lot of the things you said but we heard from Greg about some of the loss of liquidity, some of the things that banks, leaving activities. We heard from Asheet about lack of availability of credit particularly for people at the bottom of the income distribution, concerns about profitability and maybe you were worried about that and maybe you weren't, but just looking at some of the things I mentioned and indeed some of the things in the earlier panels are you concerned about some of those side effects if you like of the greater stability and the greater resilience that you've created with Dodd Frank?

MR. AMIR-MOKRI: I think you always have to take a look at what's happened. I think when I remember some of the conversations when I was Treasury, Greg would stop by and others and we would talk about the potential impact of the capital rules and we went through different scenarios and we had conversations about the different scenarios. A lot of what people have to do is make very difficult judgments especially when it comes to whether it's calibrating numbers or whether it's thinking about what types of bank stop rules you are going to have to reinforce your overall approach given the uncertainty of each of these capital standards that we have. You just want to make sure. There was discussion about all these things and people will just try to make their best judgment at the time as to what they think their priority is and they come up with – and some of these rules are consensus rules. And it's not just one, two or three regulators who have to agree. It's a board or a commission and so they do their best to put it together, but I think it's fair to say that you have to watch it carefully all the time to make sure that it's not veering in a direction that is counter-productive.

MR. BAILY: The summary would be the main thrust you feel was the right one. There may have been some compromises or some things that were around the edges that may not have been exactly what you had in mind. Greg let me turn to you, there's a concern that some of the activities, you're JP Morgan you are the biggest bank in the world?

MR. BAER: Ish.

MR. BAILY: Ish, you, being the biggest bank in the world is sort of a mixed bag right now in terms of public perception and indeed what regulators, there are some regulators who feel these guys are too big, looking at the future are you guys confident you'll be able to restructure your business model as our sheet sort of suggested in a way which will restore your profitability and if so will consumer, users, suffer as a result of this?

MR. BAER: Well first I would say I'm not sure restoration is the word I would use. We've considered ourselves as having pretty good profitability all along the way.

MR. BAILY: You have had, although return on assets is weller than it was before the crisis, right?

MR. BAER: As I was alluding to earlier it is going to be a continuing set of decisions around what businesses to be in, what businesses to be out in a very dynamic environment globally. We have done quite well in Europe, there is some entrenchment there, we are growing lots of our lines of business, a commercial bank asset management investment bank, there are clearly a series of difficult decisions to be made given the macroeconomic environment, given the regulatory environment about where to proceed next and where the marginal dollar of investment goes. I think most of us would consider us a reasonably successful institution and I think one of the reasons and I know our senior management tends to emphasize this when they meet investors and analysts, is that we actually benefit from a diversified model.

MR. BAILY: Yeah.

MR. BAER: We benefit from having asset management and investment banking.

MR. BAILY: I am actually somebody who believes that. I am on your side on that list.

MR. BAER: I think it's interesting. I think it's one way and we have stressed this to investors, it's one reason we do relatively well under ccorp because as a genuine stress test of the type that it makes great sense in terms of evaluating capital adequacy and when you have a diversified business model and you enter a stress, including that stress, you tend to perform relatively well. I think we are encouraged by that business model, I think it is going to endure.

MR. BAILY: Right, right, but again looking at some of the charts that you put up, on some of the charts that Asheet put up, are there folks that are going to be left behind during this process? And to put it differently if everybody is crowding into the high net worth space, the competition is going to step up there. We're looking at the future, that is the mandate of this panel. It's a very fair point, banks follow the rules and the rules direct them certain ways and incentivize banks to go certain ways and I think the chart we just saw is a nice indication of some of the guidelines that banks are currently following. In a perfect world we might be exploring businesses that we are not currently exploring. It really gets to again an underappreciated point that as capital and liquidity rules have become increasingly high. Become binding constraints and increasingly granular I think folks have been slow to appreciate that those come with value judgments and are not simply – people always refer to a capital cushion which sounds like this big cushion that is under you and if you should fall, but it's actually really a series of cushions assigned to each asset and in some cases liabilities and a lot of times they will drive the economic decision and that's I just think where policy makers in particular need to be sensitive to that. And think about the secondary effects now that we are five, six years in. And it was an interesting discussion earlier about how difficult it is to do a cost benefit analysis. And I think that at the macro level that is certainly true, next financial crisis against maybe more economic growth. That is very difficult, but at this stage I don't know if it's hard to do if you actually think about it asset by asset. If you say subprime one what are all the capital requirements for that, what are all the liquidity requirements? What's the cost of making that loan and what do we think it should be? Similarly, if it's a trading asset what are all the capital requirements, the liquidity requirement and margin requirements and then how do you feel at the end of the day about the risks and rewards of that set of incentives?

MR. BAILY: Subprime incentives is fine as long as you price them correctly for the risks that are involved in those.

MR. BAER: Price and capitalize.

MR. BAILY: Price and capitalize them. Can I turn to your sheet, there was a comment made earlier, made this morning about how Silicon Valley wants to take over the payment system. And Rogen said if that happens what's going to happen to the profitability among the other things he said. It's going to undermine the profitability of the banking system and as we were talking at lunch, David Wessell mentioned this to me, so what? If I'm a citizen and the payment system moves to Silicon Valley companies am I better off or am I worse off? Looking at the future do you think this is going to happen and how's it going to affect the banking sector that's been in place here, the thing that we've been mostly talking about?

MR. MEHTA: First of all it's difficult to disagree that we should not allow for customer choice and innovation so I think that's a good thing and that's part of capitalist economy and we like that stuff.

MR. BAILY: Yeah.

MR. MEHTA: If you take a look at a lot of the payment's innovation though so far most of it has been riding on bank rails, whether it be the credit card rails or the ACH rails. The funding still starts with a bank account, the borrowing for the most part ends up in a bank account, so banks still have a very valuable role to play in that, so I think for the most part you see that and it's also a two sided market between the merchant and the customer so things take a while to take off. So, I think it's a good thing, not a bad thing. I think there are certain things like (inaudible) that could be quite disruptive. Where it is a different rail that is riding. It's a completely different technology. It has its own issues in terms of price volatility and things like that, but (inaudible) but security protocol is something that you could see being adopted. You know, I think there will be a shake out over the next quite a few years. I think many of the startups by definition won't make it, a few will succeed and I think the question is will the credit card networks, the ACH network, the banks, the feds also wanted this faster payments thing, does that help the banks get back in the game? You've seen a lot of counter railing forces back and forth and I think it's going to be something that we are going to wait and see but at least I personally – there is not a McKinsey and Company but this is a personal view of mine. I think banks will have a very valuable role going forward and maybe a different role but it's still a very valuable role.

MR. BAILY: Yeah, people want the credit protection, I mean if they lose their credit card or if the big ones get hacked, they want to be made whole right so they are looking for the things that banks provide them around that transaction.

MR. MOHTA: Yeah, you want the security that's somebody to go to in case there is a problem, the customer service which a lot of these places don't offer. Obviously, you have saving protection that comes at least on the saving side. So there's a whole host of things that you think about other things that people worry about. Cyber risk. God forbid your card gets hacked into. Is a start up going to necessarily stand behind you or would you rather have a major financial institution backed by the U.S. government. There's a lot of customer behavior issues and psychology that you also need to take into account.

MR. BAILY: Let me turn back to you Cy and again pushing people towards the sort of what's the future of banking or the financial sector? You've also already laid out some changes, but can you elaborate a little bit, you mentioned the forces, the technology, the demographics, so what's the financial sector going to look like? Are we going to have bigger banks, smaller banks, different kind of institutions? How are some of these changes actually going to affect the sector that we look at?

MR. AMIR-MOKRI: I wish I knew. I think, let me just make a couple of observations. I don't know if I can predict if we are going to have smaller banks or bigger banks, but I think we are going to have very different financial institutions and you can see some of it already happening. I think financial institutions are talking about changing their IT platforms to better understand their customers. For example, I think Greg makes a very good point about diversified financial institution. I think one of the things that they will moving forward try to take advantage of that they aren't already is how do different parts of the business relate to the same customer? That is when you look at banks since the early 90's when a lot of the mergers and acquisitions in the sector started you had institutions who specialized in a certain service whether it was credit card or whether it was the investment bank, wholesale business but these – some banks did a better job of integrating than others but at the same time even the banks that did a great job integrating feel that bringing everything under the same platform can give the customer both a better sense of what all the services at the bank are across the board. But also the bank to figure out how better to serve the customer. And that's happening right now with a lot of financial institutions. Now what you have on the side are some of the disruptors who are coming or we call them disruptors, the question is how much are they going to disrupt? I think Asheet makes a great point that when you look at the payment business, you know, there is this payment value chain between the merchant and the retail consumer with multiple institutions of various kinds playing a role in that. What the tech companies have done so far is to try to find a place in that value chain. That's what's been going on so far. And so when you think about other, that's why in my remarks I talked about this being more a phenomenon of distribution or maybe services rather than displacing the balance sheet of the financial institution or the credit extension of the financial institution. To me the very interesting question is going to be with these technology companies is are they going to be in the distribution or let's say third party vendor? Are they going to make the current banks more efficient? Or are they going to come up with alternative ways of setting up financial institutions and I think that's the interesting question that both banks will be focused on but also importantly regulators because if you are now talking about your high tech start up coming up with a balance sheet and taking in funding from whoever they take funding from and then lending out against that funding directly, now you are talking about a financial institution and you are talking about a different ball game than if you are talking about just a distribution mechanism. Then – that's I think the very interesting question. There is no question that their technology is going to change, financial institutions and how they do business and how people interact with the financial institution, but the question is are they going to actually displace the intermediation functions.

MR. BAILY: JP Morgan is probably the most successful U.S.A. bank so is that future, do you guys feel happy about that that's the right place to be? That's going to be a silly question for you I know, but how would you see a large universal bank developing over the next 10 years, 15 years?

MR. MEHTA: It's a train – maybe I'll bring in a little of the global perspective here too. We started talking about banks interchangeably large banks, medium sized banks, small banks, when really there are some very different businesses being engaged in and in the U.S. it's really the universal banks, there are three, plus two trading banks, predominantly in the right which are doing the capital markets activity.

MR. BAILY: Right.

MR. MEHTA: And the substitute for that is very unlikely to be community banks stepping up and making markets right or even regional banks for a host of reasons balance sheet, compliance costs, innumerable, expertise, location, you can name a million of them. I think if you think about capital markets you are – I think you are likely to see a continuation of those banks probably with fewer entries, continuing to do that business which is an important business I think not only for those firms but for the economy. I think there is an interesting question whether European banks are going to continue to play as large a role in U.S. capital markets as they have in the past with the last chart I showed you indicating that at least currently they are not doing that. Then there is the question of whether U.S. Banks will continue to grow in Europe and Asia and then there's the whole Asian question of what are capital markets there going to look like and is that sort of the Virginia whines is the area always constantly improving or is there actually going to be a moment when Asian capital markets become much more significant, even dominant. I think that's where the interesting questions are. And then I think the parallel question is to the extent, and this gets – I guess you were talking about the retail side but when it comes to…

MR. BAILY: Both.

MR. MEHTA: Yeah, just intermediation or I think for the capital markets it's less likely to come from community regional banks and more likely to come from hedge funds where traders have high frequency traders and I think a lot of the current debate about market liquidity and there is a lot of current debate, maybe that isn't even the right word wonder and concern is about how the world has changed and who is providing the liquidity and how do you feel about that?

You may feel good that dealer, those universal banks plus a couple of others are providing less liquidity and someone else is providing more but then the question is what do you feel, how do you feel they are going to perform and behave under stress? And I think that's what's currently a bit of a concern.

MR. BAILY: I'm going to turn to the audience in a second but I wanted Asheet to talk a little bit about how you see each of the banking sector and you mentioned some of the way in which you think they are going to have to change, although you mentioned particularly change in response to regulation, so if they've digested all the regulation or most of it. So what of the forces that Cyrus laid out or the forces that you see in the sector? What's the shape of that sector going to be like?

MR. MEHTA: That's a good question. I think I'd say two things here. First is just take the underlying trends in society. Let's start with demographic. Right there clearly is the rich are getting richer and the poor are getting poorer and you see that and I would say a lot of that is driven by globalization. I think it's amplified by technology and education has enabled it, so I see that going on. We talked a lot about the regulatory trends and the pressure that has put on it, we've talked about the technology issue and that's yet another trend with certainly a lot of disruptors coming in but also the (inaudible) digitized processes take a lot of cost other than the banking industry. You'd actually say that is probably the single biggest value creating opportunity for bank is digitizing (inaudible) processes while delivering a better customer experience and having better risk and compliance in place which is just a fancy new app or something like that. Then you see the whole issue of industry structure right and how that will change. I think it's hard to imagine a lot of enmity at the very top like we used to see. So you could see more consolidation now.

MR. BAILY: Because it wouldn't be allowed?

MR. MEHTA: It wouldn't be allowed and you'd have to jump through some pretty significant hoops to get it through. You could see some more consolidation of the small and middle and the – at least in the U.S. right? And then globally, you know, you can put it all together and say what if the business model – I think what we'd say is that banks are figuring out what are the real sources of competitive advantage. If you look at the global universal banks I think and with the surcharge how do you justify the synergies of that model? And I think investors are going to be looking for that and once again it's going to push banks to say hey where do we have real advantages, where do we not? Some of the European banks have taken a much stronger measure in changing their business model. Most of it was thrust upon that. I think you are seeing that not having as rapid in the U.S. I think banks are afraid that if they exit completely will they regret it in a different environment. And also with the regulatory uncertainties you are going to see a little bit of slow down what you are just seeing is shrinkage of certain businesses but not wholesale exits for the most part. Then you have another business model which is not a universal bank but we'd say it's a customer franchise bank. These are banks that say we serve the needs of some customer segments extremely well, we're not low cost, we are high service, high touch focus on cross sell and you see those banks doing really well. And then you have other banks that we are calling them back to basic banks which are low cost very simple business model don't take a lot of risk.

MR. BAILY: Right.

MR. MEHTA: And you see that as being a successful business model, so I think the other thing you are going to start seeing is which of those three do we want to be and which one may lead to our strengths and can we accomplish it. Well the last one the back to basics model may not sound very sexy and I think for a lot of banks that's probably the right answer, we may start off saying we are a customer franchise bank, but not everybody is going to be that. I think you are going to start seeing some strategic choices being made, it will take time, as management teams grapple with making those tough decisions.

MR. BAILY: Yeah, questions, Aaron?

AARON: Yeah, I want to return to the technology question because I think Cyrus framed it exactly right if Uber were an app that just let me hail a D.C. cab the D.C. cab companies wouldn't fight it. Right? The question on payment process or are you inserting yourself into an existing chain to make it more efficient or are you creating a whole separate structure. I think in your charts you were indicating that more profit is being derived onto the payment side almost across the board and especially further down the mass affluent, I couldn't bring myself to the high net worth. And I think, Greg, I think I'm on your payments profitability. I think you guys have some pretty good cards, uh, whose rewards I like. Let me ask you guys, we are all back here in seven years is there a payments company that exists outside of the banking system all the way of that's serving a fair number of transactions.

SPEAKER: I'm happy to take a shot at it, listen it's impossible to say that there will not be one, okay? Having said that the odds that somebody succeeds at a very significant scale are not that high just because I think for the most part I think as you become big you will get regulated in all likelihood. The KYC and other things if you assume some of the current regulations in place right. You will come under greater scrutiny. And even a company like Paypal which is very successful start up. It does ride on the banking rails. Right, it's credit card and ACH. So will somebody take a bit coin and make it possible, but it's hard I imagine at least under the current regime to become a very significant player. I'm sure they quote it seven years from now and how long it was. Let me just go ahead and say that as well. Right? But look at where do you make money in payments at the end of day right? It's made on float right or it's made on the inner change or you make it on credit at the back end right? So, as you make it more and more efficient I think the where am I making money of those three things. Right, the fundamental thing they are going after is low interchange. Some of these guys. You better hold deposit balances, then you say you want to make it of credit right then you say I need a balance sheet. Now is it completely different business model which it would have to be right which is based on data or some other value added services. Where you don't really care about the payments profitability, right because it helps you do something else. I think that's the interesting question, you have I don't know if it's Uber of Facebook which has a very different revenue model and they are willing to heavily subsidize the payments and become a big payments player. If they do become one it won't be with the same profitability at least and they'll have some other objective – strategic objectives which makes perfectly rational sense for them. You'd have to see something like that to happen.

SPEAKER: And I think it depends on what you mean by payments. If you are talking about a completely separate payment network then you have to talk about creating a network which means bringing in merchants and when you think about that these are master card systems it took them years in signing a bunch of banks and merchants and going around and agreeing to this network that would serve the retail payment and I'm not even talking about wholesale payments. That's a whole different ball game. And that's a very, very hard thing to do unless you do have a better value proposition which is why as she's mentioned many people have elected to come.

MR. BAILY: What about an Apple pay or even that I think is having some struggle getting things.

SPEAKER: Well, you need to -- and here's the second point that I was going to make. And it's one, it goes exactly to your point which is it's one thing to provide the rails, it's one thing to provide the rails it's another to provide the unsecured credit and Greg's institution does that. And it's a deal between Greg's institution and the merchant bank that allows the payment guarantee to merchant bank and that's what draw it in in the first place. You need put in a very elaborate structure of balance sheet, credit revision, touch with the consumer and then on the other side touch with the merchant to bring this whole thing together. And so Apple pay would have a part of it but unless they themselves are willing to extend credit and become a bank then they need to rely on Greg and his competitors.

MR. BAILY: Fair enough. Yes, question ma'am? Just wait for the mike a second.

SPEAKER: Looking at technology what do you see as the effect of the growth of peer to peer lending both in terms of the future of traditional banking institutions but also in terms of the financial system generally since this is credit that is not being provided by a supervised institution and the credit processes are not traditional bank credit processes. The assets are being distributed widely according to mutual funds and other entities that have some of the asset liability mismatch and also may end up back on the books of other parts of financial institutions that you used to originate credit. It may end up on there – in their investment banks or in there asset management areas. I'm thinking a little bit of the Baer Stearns problem of finding they had it everywhere once they started looking for the toxic stock.

MR. BAILY:

SPEAKER: Listen I think it's fairly interesting technology. I think there's been high growth, by the end of the day it's still pretty small. It's less than a few billion dollars in total outstandings in a consumer credit market that is well over 10 trillion dollars. Is it something that out of your bank you worry about, no you look at it, you follow it closely and you decide what you will do, but I don't think anybody is going to jump in in a big way.

MR. BAILY: Let me interrupt you a little bit on that though, because I talked to the CEO of lending club and he was on vacation looking at and running through his bank statements and he saw that statement from his bank saying if he ran an overdraft or he had a credit card they would charge him 18 percent in return. And then he looked at the money he had deposited in his account and they were paying him .08 and he said this is ridiculous. And he started Lending Club and they are basically sort of creaming, I think, yeah, because the banks were charging 18 percent but there were quite a lot of people who are not that risky and they can get the money at four or five percent from a Lending Club or six percent and people can invest money and earn a lot more than the .08 percent than they get from their bank so I agree it's small but isn't it something that could be quite disruptive?

SPEAKER: There's a clear value proposition there and that's why you're seeing them pick up on both the investor side and the lender as well as the borrower and so you are seeing high growth, there's no doubt about it right? I think a few things right, first is what happens as they get bigger. What kind of regulations do they come under in oversight and what does that do to the amount or not.

I think my sense and this is pure speculation is that the regulators are letting the innovation happen and let it shake out and I think once it gets to a certain size and scale I think they will start getting more oversight, I think that's my speculation. I think the other thing is also these institutions have been through at least most of the growth that's coming up fairly benign credit cycle. What happens to those models when there is real stress and how will customers feel about that when the .08 feels really, really good compared to the negative 100. And how do you feel about that? So I think people are also, I don't think the lenders are necessarily taking into account the risk and I think for the most part people are bringing small amounts of money there. It's part of their portfolio, it's not, so I think that's what you see. Listen, I think those are kind of disruptions along with payments, wealth management, the Bettermans, the (inaudible) who are doing that stuff, who are going after different pockets and I think it's great to take this into consideration, here let's see how it shakes out. I think it's good for the customer.

SPEAKER: Are you about these innovations, these disruptors?

MR. BAER: I think always is the correct answer, although I would say and this gets back I think to the partial repeal of (inaudible) I think we were talking about that earlier. Banks really are structured and incentivized and funded to make loans like this and I think to your point about what happens under stress is that when a bank is making loans like this they have access to a stable deposit base, FDIC insured that will remain in there as a way to fund these types of loans through the cycle and that's a pretty powerful advantage I would think in that market.

SPEAKER: And the other thing is the peer to peer lenders have different business models, so some of them are just pure distributors or they have significant distribution arms, so you may have read in the news recently that both in the U.K. and the U.S. some of the peer to peer lenders form partnerships with larger financial institutions but the large financial institutions as I understand it makes the balance sheet available and the peer to peer lender then distributes it into neighborhoods where the larger financial institution doesn't necessarily have a presence so I think there are many ways that these innovators, we'll call them disruptors, whatever, can complement the existing financial institutions. As Asheet was saying the interesting thing is at what point would they scale up and go out on their own and that's a completely different regulatory environment for them.

MR. BAILY: Okay we have one last question back there. Can you make it reasonably short? I know you've been at various Brookings Institution events before. Very short please.

SPEAKER: Yes, I'm (inaudible) the question is for Mr. Baer, however, the views of the entire panel will be welcomed and that is the fourth point or the fourth element that you refer to and that is the increasing herding among investors and I take you back to May of 2013. I guess the question I wish to pose to you is what the implications going forward for the industry do we shoot first and then ask questions later, which have implications on the liquidity part and perhaps I should stop there. Yes, in fact the question simply put is the implications across the markets of that herd modality when people withdraw their support.

MR. BAER: Sure, I think herding is an important concern currently. I think there are really two different origins of it, one which is more on the macro side, there has been a noticeable trend towards herding really because of the sort of heavy impact of central bank decision making around macro on investment decisions. So that has tended I think most market observers would say to put more and more people on the same side of the trade while reacting in the same way to a large macro event as opposed to a series of more minor and disparate micro events. That's something I think that will pass over time. And that will not always be the case. The other and I think more nuanced and more regulatory focus concern I would have about herding is to the extend – we haven't really talked a lot about it today, but we have on the one hand fully risk based internal models used by banks to administer their risk and on the other end of the spectrum you have the leverage ratio which effectively says all assets have the same risk. You have now coming in something called the standardized approach, which is – which attempts to be the benefits of risk but with some of the benefits of leverage but really is more akin probably to leverage than true risk based internal modeling but is really a government set of criteria for making a decision about how much capital should be held. And to the extent that you have that that will inevitably herd banks and others to whom it applies into the same types of assets because those are the ones that receive the lower risk rates. Some of that probably already going on. But as again as capital and equivalent requirements become more without binding constraint intend to draw, drive capital allocation which actually means capital decisions or credit decisions or marketing decisions, I think over time as that happens one of the downsides of that is that you will see more herding and you will see more firms getting into the same assets.

MR. BAILY: Thank you, I'd like to thank our panel, just a terrific panel, I'd like to thank the audience and our web audience as well that's watching this. Thank you very much. (Applause)

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