The Economic Club of New York

443rd Meeting
108th Year

The Honorable Stanley Fischer
Vice Chairman, Board of Governors
Federal Reserve System

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Introduction

Chairman William C. Dudley

If everybody could please take their seats and we'll get started. I'm Bill Dudley. I'm Chairman of the Economic Club and President of the Federal Reserve Bank of New York. This is the 443rd meeting of the club in our 108th year. As many of you know, the Economic Club is the nation's leading nonpartisan forum for economic policy speeches. More than 1,000 guest speakers have appeared before the club and they have established a strong tradition of excellence. Before I introduce today's distinguished speaker, Stanley Fischer, I'd like to recognize the 223 members of the Centennial Society who have contributed to ensure a sound future for the club. I'd also like to welcome the students from Hofstra, Columbia, and NYU's Stern School of Business. Their attendance today is made possible by our members.

We're honored today to hear from my colleague, Stan Fischer, Vice Chairman of the Board of Governors of the Federal Reserve System. He took office last year, and I am very happy he joined us. It gives me an opportunity to work and learn from him. Prior to his appointment to the Board of Governors, he already had an extraordinary career in the public and private sector and also in academia.

So going backwards in time, Governor of the Bank of Israel, Vice Chairman of Citigroup, First Deputy Managing Director of the IMF, Chief Economist of the World Bank, and professor at

MIT. And while he was at MIT, he had the pleasure of mentoring several of the world's central bankers including Ben Bernanke and Mario Draghi.

Dr. Fisher started his remarkable life in Africa, born and raised in Zambia and in Zimbabwe before his university education at the London School of Economics and MIT. Stan, the floor is yours.

The Honorable Stanley Fischer

Vice Chairman, Board of Governors

Federal Reserve System

Ladies and gentlemen, and Bill, I'd like to thank you for that very accurate resume. It certainly feels a long way from a small village in Zambia to this podium, and I'm honored to be here. It is well known that the interest rate is expected to lift off before the end of this year, as the normalization of monetary policy gets underway.

The extraordinary monetary policy accommodation that the Fed has undertaken in response to the crisis has contributed importantly to the economic recovery, although the economic recovery has taken longer than we expected. The unemployment rate at 5.5% in February is nearing estimates of the natural rate, and we expect that inflation will gradually rise toward the Fed's target of 2%. Beginning the normalization of policy will be a significant step toward the

restoration of the economy's normal dynamics, allowing monetary policy to respond to shocks without recourse to unconventional tools.

And what I'd like to do today is to look back on some lessons learned during our time at the effective lower bound on the interest rate, and also to look forward. So I'll be covering a lot of ground. But before I proceed, I should say that the views that I offer are mine and not necessarily those of any other member of the Federal Open Market Committee or of the Committee itself.

So let's start with monetary policy since the crisis, and I'll do that by going back to before the crisis. The financial system was far more fragile in 2006, '07, '08 than we realized. Key vulnerabilities included excessive leverage, over-dependence on short-term funding, and deficiencies in credit ratings, underwriting standards, and risk management. And importantly, and not fully appreciated beforehand, interactions across federal institutions heightened the risk of contagion through cascading losses.

As a result, as the sub-prime crisis developed, market participants pulled back from risk taking, leading to de-leveraging spirals and fire sales, and the damage spread across the globe. Following the collapse of Lehman Brothers on September 15, 2008, international trade collapsed as panic and financial connections transmitted distress across borders. And, of course, the economy's vulnerabilities did not stem from the private sector alone. In the public sector, gaps in the regulatory structure allowed important financial institutions to escape comprehensive

supervision, and regulators were insufficiently focused on the stability of the system as a whole.

The Fed responded aggressively. By the end of 2008, the FOMC had reduced the target federal funds rate from 5-1/4 % to, effectively, zero. The Fed also acted forcefully as the lender of last resort – in its traditional role of providing short-term liquidity to depository institutions, and also by providing liquidity directly to borrowers and investors in key credit markets.

In addition, the worldwide scope of the crisis called for concerted international action. Because of the global nature of dollar funding markets, the Fed authorized dollar liquidity swap lines with major central banks, beginning in December 2007. In October 2008, central bankers coordinated reductions in policy rates and the G-7 agreed to use all available tools to prevent the failure of systemically important financial institutions. The next month, the G-20 announced a broad common strategy, including fiscal expansion. While these steps likely prevented a second Great Depression, something that those who knew history feared as they watched the crisis unfolding, but these steps were not sufficient to avoid a severe global contraction.

In the United States, with the federal funds rate set – I'm going to switch from saying the effective lower bound – we say that because the rate was actually between zero and 25 basis points, not zero – so I'm going to say the zero lower bound, by the end of 2008, the FOMC, the Federal Open Market Committee, judged that it could not provide much additional accommodation via the interest rate. Instead, the Fed used two unconventional tools: large-scale

asset purchases and enhanced forward guidance. And to varying extents, foreign central banks have also been using these tools – in the case of the ECB very recently.

The evolution of our asset purchases reflected a learning process for policymakers. In the early programs, the FOMC specified the expected quantities of assets to be acquired over a defined period. In contrast, with QE3, the most recent round of quantitative easing which ended in October 2014, the FOMC announced that we would continue to purchase securities at a specified monthly pace until the outlook for the labor market improved substantially in a context of price stability.

With the federal funds rate near zero and the Fed creating and adjusting new asset purchase programs with considerable frequency, it became difficult for the public to anticipate how the FOMC would likely conduct monetary policy and respond to changing economic conditions. Thus, the FOMC began to rely heavily on enhanced forward guidance to communicate its intentions. Forward guidance works both because it changes expectations of market participants but in part also because it constrains the flexibility of decision makers when the time comes to make future decisions.

There may, nonetheless, be a number of potential, there may be a number of potential costs associated with unconventional tools, and I'll mention two. First, when interest rates are extremely low, risks to financial stability might grow. And second, elevated security holdings

could reduce the Fed's income as interest rates change and reduce remittances to the U.S. Treasury when rates eventually rise, although every calculation, every plausible calculation, reveals that the present discounted value of what the Treasury will receive from the Fed as a result of quantitative easing is higher than it would have been otherwise.

In addition, the Fed's quantitative easing appeared significantly to affect foreign asset markets, and to have contributed to a surge of capital inflows to emerging-market economies. You probably remember that our asset purchase programs were also referred to as a currency war. However, eventually most emerging-market economies seemed glad to receive those flows so you had the phenomenon of them objecting to the start and objecting to the end of both those periods. Interestingly, the asset purchases recently announced by the European Central Bank appear to be putting downward pressure on longer-term interest rates in the U.S. But in addition, the ECB's policy should increase growth in Europe, which will be beneficial for U.S. exports. Some of these benefits may be offset by the recent appreciation of the dollar, but much of the increase in the dollar likely reflects other factors certainly including the relatively strong performance of the United States economy.

Looking back, there is ample evidence that supports the view that the Fed's asset purchases contributed to a stronger U.S. recovery, by raising the prices of the assets purchased which means reducing long-term interest rates as well as those of riskier assets. Our experience also shows that forward guidance helped better align market expectations of Fed policy with the

FOMC's policy intentions. In brief, unconventional policies helped bring down long-term yields both by reducing term premia and by lowering the expected path of future short-term rates.

Let me now move on to the recovery, and I'll be brief. Despite monetary stimulus, the recovery has been even more sluggish than we had expected. The slow recovery provides more evidence that severe financial crises have long-lived effects, as Reinhart and Rogoff, and others, have documented.

The gradual pace of the recovery likely reflected both demand and supply factors. With respect to aggregate demand, the economy faced several important headwinds: efforts by households and businesses to rebuild their balance sheets, persistently tight credit conditions, the extreme weakness of the housing sector, the significant drag from fiscal policy in the years 2011 to 2013, and the growth slowdown in Europe and other parts of the world.

Turning to aggregate supply, it appears, unfortunately, that productivity growth has slowed. One notable manifestation of slow productivity growth is that last year, unemployment fell significantly further than we had anticipated – a pattern which had occurred in the previous four years as well – whereas GDP growth fell short of our expectations, as it had in three of the four prior years. However, productivity is extremely difficult to predict. For my part, I believe – and this is mainly a belief – that the enormous gains in human welfare that the IT explosion seems to be generating are likely to continue, and will perhaps eventually return measured productivity

growth to its long-run historical pace.

Now a few words on the liftoff. Although the recovery has been slow, there has been significant cumulative progress with the labor market very close to most definitions of full employment. An increase in the target federal funds range will likely be warranted before the end of this year. Let me state something very simple. Liftoff should occur when the expected return from raising the interest rate outweighs the expected costs of doing so. That seems a tautology, but as someone once remarked, tautologies have the benefit of being true. (Laughter) We anticipate that it will be appropriate to raise the target range when there's been further improvement in the labor market and we are reasonably confident that inflation will move back to our 2% objective over the medium term.

Now I want to focus from now on, on policy normalization. What will come after liftoff? When that happens, we'll be able to rely on our traditional policy framework of adjustments to the federal funds rate. But as long as our balance sheet remains sizable, we will not be able to implement monetary policy with our traditional tools. Because it is important that when we change the rate for the first time in a long time, we will be certain that we have the operational tools to control the federal funds rates, we have developed and tested new operational tools to do that.

As discussed in the FOMC's statement on its Policy Normalization Principles and Plans, which

was published following the September 2014 FOMC meeting, we will use the rate of interest on excess reserves – and I'm going to use acronyms because if you're from the Fed that's all you know how to speak – we will use the rate of interest on excess reserves, IOER, as our primary tool to control the federal funds rate. But we also plan to use an overnight reverse repo facility, ON RRP. We're trying to not have five-letter acronyms, but they happen. In an ON RRP operation, counterparties may invest funds with the Fed at a given rate, possibly subject to a cap on the aggregate amount invested. Because the counterparties to ON RRP operations include many money market participants that are not eligible to receive IOER, this facility can be a powerful tool for controlling money market rates. And testing to date by the New York Fed suggests that ON RRP operations have generally established a soft floor for such rates.

But an ON RRP program also has certain risks. For example, a large and long-lived program, could have unanticipated and adverse effects on the structure of money markets. In addition, and this one is complicated, in times of stress, demand for the safety and liquidity of ON RRPs – it will be government paper after all – with the central bank might increase sharply, potentially exacerbating disruptive flight-to quality flows. To mitigate these risks, the FOMC has agreed that it will use an overnight reverse repo agreement facility only to the extent necessary and will phase it out when it is no longer needed. This is a transitory measure. In addition, the Fed has been discussing and testing other supplementary tools, such as term reverse repos and term deposits, and can use these tools as needed to help support money market rates.

With regard to balance sheet normalization, the FOMC has indicated that it does not anticipate selling agency mortgage-backed securities. When the time comes, we plan to normalize the balance sheet primarily by ceasing reinvestment of principal payments on existing holdings. When the FOMC chooses to cease reinvestments, the balance sheet will naturally contract, with a corresponding reduction in reserve balances. This runoff of our securities holdings is what will enable us to reduce the size of our balance sheet and will also gradually remove accommodation, which is an effect we will need to take into account in setting the stance of monetary policy.

During the normalization, we will, no doubt, learn more about our different tools and make adjustments to our operating framework. And in part because of this adaptability, I am confident that by using IOER and, as needed, these supplementary tools, we will be able to raise short-term interest rates when that becomes appropriate.

Now what then happens to monetary policy? The focus of the great bulk of the discussion on monetary policy during the last few years has been on liftoff – on the circumstances under which the FOMC will choose to raise the federal funds rate for the first time, in by now six years, on the date on which that will happen, and on the impact of the Fed's very large portfolio on how it will manage the liftoff process. Those questions are natural after more than six years during which the federal funds rate has been held at zero.

But as liftoff approaches, we need to think of what will happen next. For liftoff is only the start

of the process of normalization, and going forward, the FOMC will once again be changing the federal funds rate as necessary, both up which everyone talks about and sometimes down. Accordingly, discussion of monetary policy needs to begin to shift to the future path of interest rates, and thus to the basis on which the FOMC will set interest rates following liftoff.

There has been a lively discussion of one element of the future path of the federal funds rate – whether liftoff should be sooner with a gradual rise in the rate, or later to be followed by a steeper path of the rate. These discussions are useful when considering the appropriate timing of the first increase in the federal funds rate. But what comes after the first increase? Well, if you look at the projections that people have published, you'll find that the path of the federal funds rate seems to proceed smoothly to the longer-run normal nominal federal funds rate. One might even look back to the period 2004 to 2007 and conclude that the FOMC will raise the federal funds rate by 25 basis points every meeting for 17 meetings, or every second meeting, or every third meeting, depending on the date of liftoff.

I know of absolutely no plans for the FOMC to behave that way. Well, why not? Isn't that what the calculation of optimal control paths show? Yes, it is. But a smooth path towards to normal long-term federal funds rate will almost certainly not be realized, because inevitably the economy will encounter shocks – shocks like the unexpected decline in the price of oil, or geopolitical developments that may have major budgetary and confidence implications, or even a burst of greater productivity growth as the Fed dealt with in the mid-1990s.

And when these shocks happen, policymakers will have to respond to at least some of them. Accordingly, there is in fact considerable uncertainty about the level of future interest rates – a degree of uncertainty that can be estimated statistically, and that should be taken into account by market participants and recognized by the FOMC when it discusses future levels of interest rates. The uncertainty about future levels of the federal funds rate can be represented in a fan chart, a so-called fan chart, that is, a figure showing the expected path of the federal funds rate, which is a straight line, as well as a range representing the degree of uncertainty around that path. And that range becomes wider and wider because our knowledge about where the federal funds rate will be further in the future is less accurate than that about where it will be soon after liftoff.

The two sure elements of forward guidance that the FOMC will be able to offer after liftoff are that monetary policy will continue to be aimed at fostering the Committee's dual objectives, and that it will be data driven. As we move away from the zero lower bound, the data to which we will be responding will less and less be driven by the financial crisis and Great Recession, and increasingly by post-liftoff economic developments. Whatever the state of the economy, the federal funds rate will be set at each FOMC meeting on the basis of what the members of the FOMC believe will best enable us to meet our goals over the course of time.

As it responds to incoming information, the FOMC will continue to be absolutely transparent in explaining its decisions and how and why they contribute to meeting the legally mandated dual goals of monetary policy. That transparency serves three purposes. First, it is required if we are

to be accountable to the public. Second, it is the best way of ensuring that monetary policy decision makers continue to follow sensible and rational policies. And third, it is the best way of informing the private sector of the basis on which monetary policy decisions are made and will continue to be made.

With respect to forward guidance, its role has been and continues to be important in the long period in which eventual liftoff has been the key interest rate decision confronting the FOMC and the focus of market expectations. However, as monetary policy is normalized, interest rates will sometimes have to be increased and sometimes to be decreased.

Market participants will be able to form their expectations of future interest rates on the basis of three elements. First, the policy record of the FOMC, which might be approximated as a reaction function. Second, their analysis of the current economic and financial situation and outlook. And third, by whatever guidance the FOMC will provide as to how it sees monetary policy decisions likely to unfold given the economic situation and outlook. But it is likely that explicit long-term forward guidance in the sense of committing the Fed to take specific actions at specific dates will play less of a role in monetary policy post-liftoff than it has during the past exceptional few years.

Policymakers' behavior is sometimes summarized as a reaction function, which can be an algebraic description of how the interest rate is set – for instance, a Taylor-type rule in which the

federal funds rate reacts simultaneously to the rate of inflation and the rate of unemployment and the expectations of their changes. However, a simple rule of that sort will, by necessity, leave out many factors that appropriately influence monetary policy, such as financial developments, temporary divergences in relationships between different measures of economic activity, or inflation, and the like. A simple rule can provide the starting point for the decisions made by the FOMC, but in reaching their interest rate decision, members of the Committee will always have to use their judgment to identify any special circumstances confronting the economy, and how to react to them.

To ensure that monetary policy operates in as stabilizing a way as possible, the FOMC will continue to set out, as clearly as it can, the basis of every decision that it makes, and to provide guidance on its expectations of future decisions. And with regard to market participants, on the basis of the information provided by FOMC, on the basis of their understanding of the historic record of Fed policy decisions, and on the basis of their analysis and expectations of the state of the economy and particularly, the financial markets, they, that is, the market participants will also make the best decisions they can. Thank you.

QUESTION AND ANSWER PERIOD

CHAIRMAN WILLIAM DUDLEY: Thank you very much Stan. As is our custom, two of our members have been selected to question Dr. Fischer. Ruth Porat, Vice Chair of the Economic

Club, and Executive Vice President and CFO of Morgan Stanley, over here. And Abby Joseph Cohen, also Club Vice Chair and Chief Investment Strategist at Goldman Sachs. And if you have questions, you may email them to our President, Jan Hopkins at questions@econclubny.org. Abby, you have the first question.

ABBY JOSEPH COHEN: Thank you Bill. And, Mr. Vice Chairman, let me thank you on behalf of the club members for what I thought was an extremely clear and consistent statement about the future path of Federal Reserve policy. Certainly the blueprint that was set out in September with regard to the normalization of policy has set, I think, the standard for many comments. And while you went forward talking about this road map but carefully not the timing, there is one related area that I'd like to ask you about, and that is the conduct of central bank policy outside the United States. Clearly what we are now seeing there is zero bound limit on interest rates, especially in Europe. We see a number of central banks in uncharted territory, not just with low real rates, but negative nominal rates. And if you could address for us what this might mean. So, for example, will these negative interest rates encourage more lending? Or perhaps they will have a compression on bank margins and make lending less likely? And furthermore, will they encourage more risk taking? And in an area now of uncharted territory for European central banks, a territory that the Federal Reserve tried to avoid, what are some of the implications for Fed policy here?

THE HONORABLE STANLEY FISCHER: Thanks Abby. The measures – let's take Europe and

what I'll say about Europe applies to Japan as well and to the U.K. – the measures undertaken by the ECB recently, and I'll come to negative interest rates in a moment, the measures undertaken by them are a welcome and well-planned move seeking to strengthen the European economies, those in the European Monetary Union. It's a measure which had long been called for by outside observers. It's a measure which was intended with certain difficulties in reaching agreement, but it has now happened. And it's having a bigger impact on the capital markets than I think many had expected, and it's having a bigger impact on expectations of economic activity in Europe than most people had expected. Our main interest is that the European economy and the Japanese economy and the British economy recover. We will be better off if they are growing faster. And that is important to us, and these are measures which we fundamentally support for that reason, because they're aimed at increasing growth. Now the issue that you raised about the exchange rate is one that obviously is on many people's minds. There is an agreement among the G-7 countries that so long as monetary policy actions are taken primarily to effect domestic demand, they're acceptable. And that applied to the United States when we did it, and that applies to the others. What is not acceptable is manipulating exchange rates – purely exchange rates – trying to use that as the sole means of generating growth. That has not happened as far as we can tell in our partner countries. Now, the question of negative interest rates is very interesting, and I think we don't have full knowledge yet. When the Fed looked at the question of whether the interest rates could be made negative, they concluded that given the importance of primarily, the prime factor, given the importance of money market mutual funds in the transmission of monetary policy, setting interest rates at a negative level could create difficulties for the operation of the

monetary mechanism. And the Fed decided not to do it and we've managed without doing that to get growth to recover but it's taken a long time. There are limits on how far you can make the rate negative. The minimum at the moment, the minimum central bank rate is minus 75 basis points. There are questions always how much further could you go. You may be able to go a bit further, but not very much further. Could that help? Well, it may be that things that would have created difficulties in the United States will not create difficulties in those economies. Certainly the central banks that have moved to having negative interest rates are highly respected for their technical expertise. And I assume they've looked at everything and have reached the conclusion that having negative rates will help get to the aims they would like. I don't think they will make the situation worse in their context. They might have complicated our situation if they'd been done here. But you always want to watch what things are happening abroad just to see if there could be lessons for them. It doesn't look like, for us, it doesn't look like it at present. But we really ought to keep watching what's going on in the monetary area.

RUTH PORAT: Thank you. Thank you for your opening comments. The dollar has appreciated at an aggressive pace and may strengthen further given divergent global monetary policy, particularly between the U.S. and Europe. And given this rapid appreciation, when do you expect and how do you assess the full effect on export volumes in the broader economy?

THE HONORABLE STANLEY FISCHER: Well, I discussed our reactions to what's been going on so far which is we're not going to take any; we accept what's going on. As to how long it will

go on for, exchange rates have a habit of overshooting. I'm not going to make exchange rate forecasts. That's one area where the state of our knowledge is absolutely conclusive. You cannot predict exchange rates. And there are countless papers showing that. So I don't know, is the answer to the question, and we will react to circumstances as they occur.

ABBY JOSEPH COHEN: I'd like to go back to the question of the dual mandate for the Federal Reserve, the idea that the focus needs to be both on employment but also inflation. You made a comment with which I would agree, which is that the economy is now close to full employment and certainly things look so much better on the basis of many different metrics – unemployment rate down to 5.5%, less involuntary part-time workers – but there are still some problems. There are problems among those who are less well-educated. We also see that the participation rate is still low, and only some of this can be explained by the demographics, i.e., the aging of the Baby Boom population. And, of course, we also see that wage growth is still sluggish. So my question for you, Mr. Fischer, is what will the metrics be that the FOMC is looking at with regard to the resilience of the labor markets as it thinks about policy going forward? And also what do you think the better inflation metrics are that we should all be focused on, particularly given the impact of low commodity prices on headline inflation metrics?

THE HONORABLE STANLEY FISCHER: Well, with respect to labor markets, there certainly are problems in the labor markets in the sense of low participation rate and still a slightly higher ratio of people unemployed, working part-time for economic reasons, than was normal in the

past. The question is how much you can do about that through macroeconomic policy, particularly the participation rate, which is largely a demographic phenomenon, having to do with the longevity of the population. And so we will continue with the policy of trying to keep aggregate demand growing. There is one point which is critical to understand. When we raise the interest rate, as we probably will do one day, from zero to 25, to 25 to 50 basis points, we will be moving from an ultra-expansionary monetary policy to an extremely expansionary monetary policy. (Laughter) Now I know you like to pause the wording of members of the FOMC, but there's agreement on that particular wording. We are not going into a situation where aggregate demand is suddenly not going to support an expansion of the economic activity. And so that's the context in which we're doing this. Now two things about the dual mandate. What should we be looking at for the inflation rate? Well, the inflation rate is a slowly moving variable typically, particularly right now. It's also been hit by a series of large, but transitory shocks. And you can say it with some conviction that they're transitory. They're transitory because we're talking about the price of oil. What is the shock is the continuation of the decline in the price of oil. That will stop. It's not going to keep going. It's somewhere, I'm not making forecasts about the price of oil either, but it won't continue forever. The other is the exchange rate. It won't continue appreciating forever. So we're trying to look through those phenomena and ask what will happen in the course of the next couple of years when those shocks have been absorbed and the inflation rate stops being negative and goes back to something like 1.5, 1.3, 1.4, 1.5%, something like that. What sort of decision will we make? And we will not make a decision only on the basis of what the exchange rate is on a given day. We will make a decision on the basis of where we

think it's going and all our communications on this point have related to the fact that we will have to expect, with reasonable certainty, that it is on a path returning it to its target of 2%. Let me add one thing about the dual mandate which is fascinating. Almost every central bank in the world, except the Fed, has policy goals which start off with primarily the inflation rate, and then you can worry after that about activity. That is not at all our problem today. We have two goals. If we were pure inflation targeters, we'd have the exact same problem that we have. We're targeting inflation at 2% and it's way lower. And we wouldn't, the fact that when you have full employment would have no bearing on that. So this is a problem about inflation, very much so. The other thing which I think is kind of obvious to those of who you study central banks, even central banks who say they are pure inflation targeters; do not behave in a way that says we'll do anything to get inflation at 2% next month. They wonder about what their actions will do to output. They also have a dual target, but they don't talk about it explicitly. We're being required to talk about it explicitly. That may be healthy.

RUTH PORAT: You chair the Fed's newly created committee on financial stability that's charged with identifying the next sources of financial stress. So in this context, I have a two-part question. First, regarding regulated financial firms, much has been accomplished with significantly higher capital and liquidity, stress testing, changing the scope of permissible activities, and resolution planning. You've described this regulatory onslaught, and I quote, "A scale in scope not seen since the Great Depression." So given what has been accomplished and given your observation that policymakers have a good deal to learn about how these reforms

actually operate in and affect markets, question one is when will we reach the assess and digest phase of the rule making process? And question number two, as you've noted, some critical activities have moved to shadow banking in reaction to the regulatory change, what are the Fed's priorities in this regard?

THE HONORABLE STANLEY FISCHER: Well, I think we're at the evaluating and – whatever the other word was that you used – stage of the process. There's been an enormous amount of regulation put into place, very important it happened at a very rapid rate after the passage of Dodd-Frank, even before the passage of Dodd-Frank. And it continues, but the basic framework has been put in place. You didn't mention also the emphasis on risk management and that's another factor that is important. It does also appear to be the case that activity, some activities have moved into the shadow banking sector and the question is do we have regulatory or other means of controlling or mitigating the possible negative impacts of those things. In some cases we do. One of the things we're doing in our Financial Stability Committee is just mapping what instruments we have for dealing with each part of the shadow banking system. Some of them, the Fed has an authority on margin requirements that is very broad. There are others that other institutions control. So we need to get some coherence about who does what and how those decisions are made. The FOMC, sorry the FSOC is the venue for those decisions. And in the case of a couple of decisions, the FSOC has been an effective venue particularly dealing with the money market mutual funds recently.

CHAIRMAN WILLIAM DUDLEY: We have a question from Jan from the audience.

JAN HOPKINS: We have a question from the floor. Wednesday, market yields moved sharply lower after the FOMC statement and press conference. The market-implied odds of June liftoff have dropped sharply to less than 25%. Are markets misreading the Fed's message? (Laughter)

THE HONORABLE STANLEY FISCHER: Well, the phenomenon that the FOMC was dealing with was the decline in expected growth following a weak last quarter of 2014 and a weak first quarter of 2015, likely. We don't have the data yet, but likely. And so you saw some of the growth rates being marked down by the FOMC participants and their expectations on the interest rate. I believe much more they're data driven. And that whether it's going to be June or September or some later date or some date in between will depend on the data that appear between now and then, and in particular the data that have been the strongest of late which is labor force, which is employment, will play an important role. And we haven't got those. We've got two very positive numbers for the first quarter of 2015 and we're waiting for another one, we're waiting for another number, excuse me.

ABBY JOSEPH COHEN: I'd like to go back to the subject of how to manage monetary policy in an environment of a very large balance sheet. And this seems to be yet another area in which some market participants still seem quite confused. So, for example, we see that the balance sheet has grown significantly on the part of the Fed. Before the financial crisis, it was about 6%

of GDP. It's now 26% of GDP. Yet market participants seem a little bit nervous about the prospects that we can handle this just by allowing these securities to roll off in a gradual way and don't seem to have the international perspective that while our ratio was 26% of GDP, for the Bank of Japan it's already 60% and for the Swiss it's 80%. So do you think that, although I believe communications have been quite clear from the Fed, that they could become a little more clear with regard to what the challenges are, but also what the path may be?

THE HONORABLE STANLEY FISCHER: I believe that actually the FOMC has put out enormous amounts of information about what the mechanisms will be, at least, and Bill probably has more knowledge than I do, but there's nothing that I know that isn't in those statements. That might be a statement about what I know, but probably not. We've also done these market tests, serious market tests, which have been expertly led by the New York Fed, and there shouldn't be that degree of uncertainty. Now, the size of the balance sheet being what it is, is why we've had to change the way of managing monetary policy at the beginning of the liftoff. We don't want to go in, in the old way, and start selling securities because there are so many securities that we hold, nobody will believe that we're not going to manage that way. And we are managing a different way and we will continue to manage a different way until the size of the portfolio is sufficiently small which means excess reserves will be sufficiently small that we can operate as we operated in the past.

RUTH PORAT: Switching to housing, the Great Recession underscored how the health of the

housing market and the health of the overall economy are critically intertwined. The Fed has been vigilant in supporting the housing market although Morgan Stanley's research analysts still describe it as Triple B, bumpy, brittle, and below par. Notwithstanding some positive data such as an uptick in new household formations and housing starts, particularly multi-family, the risk is that policy normalization focused on the short end affects mortgage affordability at the long end even against the backdrop of an improving economy and then exacerbates the current challenge of mortgage availability given tight credit. So two problems, two potential problems – mortgage affordability and mortgage availability. What do you need to see with respect to the housing market to have confidence that it can withstand the higher rates that are on the horizon at some point?

THE HONORABLE STANLEY FISCHER: Well, I think the housing market is weaker than has been expected for some time. And when we frequently have conversations with people who are active in that sector, in the building and construction sector, they talk a lot about people delaying the purchase of a house and so forth. So we're trying to understand that process where if something is delayed, it's probably going to happen somewhere down the road. So we're going to keep on doing what we can. And as a society we have to be careful not to recreate the conditions that created the last crisis. It's not true that every financial crisis has a real estate crisis in it, but it is very frequently. There's a very important real estate problem frequently when there are crises. We don't want to go back to that. It means we'll have to make sure that banks continue to manage their risks well, and that the non-bank sector is also managing its risks well.

And that's what is going to happen. I can never be quite sure. I'm, you know, the one, the optimist sees the glass half full, and the pessimist sees it half empty. With the housing market, the optimist says, wow, there's a lot of room for growth there, so we have a future growth prospect waiting for a slight change in perceptions of what a housing investment looks like. And, of course, the pessimist says, if you can't do it with these low interest rates, when will you ever be able to do it? But these are very, very low interest rates, and the interest rate following the first change will be very, very low. And there will be ample time for people to buy houses. Thank you.

CHAIRMAN WILLIAM DUDLEY: Well, thank you Abby. Thank you Ruth. And, of course, thank you Stan. Thank you for taking all those questions. I enjoyed having you do it. (Laughter) The next meeting of the club will be to honor Alice Rivlin with the Leadership Excellence Award which will be presented on April 21. Enjoy your lunch.