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WHAT HAPPENS WHEN THE FED RAISES RATES?

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P R O C E E D I N G S

MR. WESSEL: Good morning. Thank you all for coming and for watching on line. I'm David Wessel; I'm Director of the Hutchins Center on Fiscal and Monetary Policy here at Brookings. Our mission is simple, to improve the quality of fiscal and monetary policy and public understanding of it. I'm not sure which of those is harder. (Laughter) We are meeting today, we convene this because we're at a really interesting and indeed a pivotal moment in Federal Reserve policy. Because of the great recession and the financial crisis as bad as most of us have seen in our lifetime, something that rivaled the one that led to the great depression, the Federal Reserve did extraordinary things. It cut interest rates to zero at the end of 2008. And I doubt that anybody thought at the end of 2008 that we'd be sitting here in 2015 trying to decide, so is it time to raise them or not. The Fed engaged in what's called quantitative easing, bought trillions of dollars of bonds and mortgage backed securities in an experiment in monetary policy that people will be studying and writing about for a generation to come. And these techniques have been matched and amplified and amended by central banks in the UK, in Europe, in Japan. And they represent a lesson in economic history that we will be learning from for a long time.

But the policy makers at the Federal Reserve don't have the luxury of waiting for the next Milton Friedman or Ben Bernanke to write about the history of the 21st century, they have to make decisions now. And fortunately the U.S. economy has strengthened, unemployment has fallen to 5.3 percent, we're creating more than 200,000 jobs. And so there has been a sense among some people that okay, it's time for the Fed to begin to ever so slightly tighten the spigot and raise interest rates. And I think that it's safe to say a couple of months ago or maybe a month ago there was a kind of consensus

that the time had come, and then somehow the world blew up. The stock market gyrated, the Chinese devalued the currency, their stock market crashed. Mario Draghi said this morning at a press conference at the ECB that the rest of the world looks worse than he expected and financial conditions have tightened. So that is something the Fed has to take into account.

So today we're going to discuss what should the Fed do, what will the Fed do, not only next week, but in the months and years to come given that they're in unchartered waters. And I have a very distinguished panel of experts here, and I want to make clear this is not a cross section of America (laughter), nor is it meant to be. These are four economists, all of whom have worked at the Federal Reserve at one point in their career, all of whom believe that we should have a Federal Reserve. This is not the end the Fed crowd; nobody here wants to go to the gold standard. I suspect, although I may be surprised, that nobody here thinks the Fed should forever abandon its interest in controlling inflation even though inflation is very low right now, far from their target. So these are people who have a sense of how the Fed works, but are outside the Fed and can think about how the Fed might do things to have a greater chance of achieving the goals that were set by Congress, stable prices and maximum sustainable employment with an implicit now mandate of, oh and by the way, we'd like to not have another financial crisis. (Laughter)

Julia Coronado is at Graham Capital. Joe Gagnon is across the street at the Peterson Institute for International Economics, Jon Faust, who had worked closely with Janet Yellen is now back at Johns Hopkins and can tell us what he really thinks (laughter), and my Brookings colleague, Don Kohn, who among his many accomplishments was Vice Chairman of the Federal Reserve Board during some of the

worst of the crisis. And in addition to being at Brookings is a member of the Bank of England's Financial Policy Committee which has to weigh the financial stability issues that confront us today.

We're not going to have any opening statements. We're going to have a conversation and we'll invite you to joint it sometime later in the hour. So I thought it would be useful if we just started by -- if I asked each of you to put yourself in the position of the Federal Open market Committee, and what are the things that you have to look at as you decide so is September the time to raise rates, should we wait until December or maybe even later. What are the cross currents that you think are being weighed and then we'll get to how you'd weigh them.

Don, do you want to take the start?

MR. KOHN: Sure. So if I had to vote in a couple of weeks I think I would start -- I know I would start by thinking about my outlook for the economy in one to three years. So monetary policy works with a lag, whatever I decide now has no affect on August's employment number that we'll be getting, that's in the past, and it will have very little affect on employment or inflation over the next three, six, nine months. So I have to think about where we're going to be in one to three years. I think in that regard -- so I like to think of the Fed's decisions as being outlook dependent. The Fed talks about data dependency and data are important but you have to be careful not to overreact to individual pieces of data, and by sort of processing the data through an outlook, a forecast. I think that's one way of trying to extract the signal from the noise of the data and not overreacting, and think about how it affects where things will be one to three years from now.

When I think about where we've been over the last couple of years I see

very steady progress in the labor market. So particularly last two years we've been creating jobs at more than 200,000 a month on the establishment survey. That's more than twice as much -- about twice, maybe a little more than twice as much as we need to tighten the labor market. So from a labor market perspective the U.S. economy has been doing pretty darn good. Now that hasn't been associated with very good growth, two and a quarter percent growth, but that's because potential growth has been so weak, with productivity around half a percent over the last few years. So I think focusing too much on growth can lead you astray. You've got to think about -- the two objectives that David pointed to are the labor market and inflation, and the labor market has been tightening. And there is probably some slack left in it, but we're using that up pretty quickly.

So I start from the perspective that -- and as that is used up and if we overshoot the maximum sustainable employment, which I think we probably will by at least a little, that will push inflation back to the two percent target. So I start from the premise that interest rates are going to have to rise at some point, and in my mind before too long. Now exactly when they increase isn't all that important. If September, December, that's not very important. What's important is they have to start rising, and what's important is the track for interest rates, the total path of interest rates once they start to increase.

Now one thing that might make me hesitate, even though I think interest rates need to rise, one thing that might make me hesitate to do it in September is -- well, a couple of things. One is inflation has been very low and hasn't shown any sign of increasing. I don't need to see that rise in inflation. I think labor markets tighten enough inflation will come back and will get up to the two percent level, but it would be a little reassuring if you saw a little more there. So the fact that inflation hasn't risen, wage

gains hasn't picked up, wouldn't hold me back entirely, but they do make me hesitate a little about moving sooner rather than later. And the other issue is the turbulence and volatility in financial markets and the fact that expectations of a Fed increase in September are still pretty low.

So I think I'd hesitate to raise in September because of these market situations, don't know what the emerging market outcome and the Chinese outcome is going to be, but I would put very -- if I didn't raise I would put very strongly on the table an expectation that rates would go up. I would retain the wording about later this year and make that the default proposition. And I think that would help to build in the expectation of higher rates later this year and put that in the market, so when I finally did move it wouldn't be such a surprise.

MR. WESSEL: Jon, do you disagree with any of that?

MR. FAUST: So I very much agree with that position that Don just gave. I'd like to add a little color I guess of my own, or some details that fill it out a bit.

When you think about that outlook over one to three years from now, one of the things that's important to realize is that in any given announcement, like Friday's employment report or any other data announcement, we learned very little about where the world will be one to three years now. That evidence accumulates very slowly. So Friday's employment report won't change that outlook much and thereby won't change the decision much. If that number comes in at 100,000, which is lower than the above 200 we've been seeing, well there's revisions, that's one month, there's a long history now of pretty steady job growth. So that evidence accumulates both on the real side about how fast the labor market is healing and on the inflation side that evidence accumulates slowly. The FOMC now reports that it's expecting it to take a few years for

inflation to get back to two. So it's going to move slowly there and the FOMC has said that they want to have reasonable confidence that it will move back toward two. And you might ask yourself if they decide to delay in order to gain more confidence on that point, where could that confidence come from? Well, as it turns out, and as Vice Chair Fischer said last week at Jackson Hole, because of energy prices falling we're expecting inflation to go down for a while for purely transitory reasons. That's generally baked in the cake. Now that should affect your confidence about what happens one to three years from now at all. Oil prices go up, they go down, it affects inflation. So that doesn't affect your confidence at all. If you wait it may make the optics a little more peculiar that inflation is even lower and you moved later, but it shouldn't affect your confidence about where inflation will be one to three years from now.

So what should? Well, I think we're back to what Don referred to which is the real side of the economy. That is, is the labor market continuing to tighten, are you confident that it will continue to tighten. And I actually gave a paper at this Jackson Hole symposium saying that that relationship between labor market tightness and inflation isn't very well understood, especially at the current moment. But everybody I think believes that at some point as the labor market tightens it will provide upward pressure in inflation and we'll see inflation emerge. And almost everybody believes we're getting near that point. And so that's where the debate is, how close are we to that point, are we close enough to that point to gradually begin going from an extremely accommodative position to just one that's extraordinarily accommodative. And that is what I think the debate is about.

And finally I'd emphasize that it -- the particular timing of the first lift off, which everyone -- Don said, all the FOMC has said -- doesn't matter so much, it's the

path over time. And they laid a lot of ground work that that's very likely to be slow unless the economy booms or, you know, wondrous things break out everywhere. So that's the framework and I think what they'll be debating in September is whether they still have that confidence the labor market will continue to heal because that's where the confidence about inflation returning comes from.

Can I say just one other thing?

MR. WESSEL: Sure.

MR. FAUST: David said the world blew up, and it's important for us to -- you know, in the last few weeks it's important to realize the real side didn't. You can go ask people did they fire a bunch of people, are they still producing automobiles. Well, I think so.

SPEAKER: The United States.

MS. CORONADO: Not in China.

MR. FAUST: So in the United States. It didn't blow up in China, the markets acknowledged --

SPEAKER: No, it did, in Tai Jin. (Laughter)

MR. FAUST: Well, yeah, well, I mean that's true. The markets acknowledge some accumulating evidence on the real side in China. So I think first and foremost you try to look through pure financial volatility and the question you ask is, is this volatility telling us something, that the economy is fundamentally weaker so that I can't have confidence that inflation is going to return to target. That's really the question. And that relationship we don't understand really well, but there will be an intense discussion about that. Does the volatility signal something about the underlying economy or is it like a lot of volatility in financial markets, the kind that will ultimately leave no trace

in the data.

MR. WESSEL: Okay. Joe, let me turn to you. So I get that it's very comforting to know that the Fed doesn't understand the relationship between inflation and unemployment and the relationship between financial conditions and inflation, but as we said and as I know you know, you have to make decisions based on what you know and on your best understanding. So, Joe, let me play the devil's advocate here for a minute. The only reason to tighten is the unemployment rate is down. We still think -- some people think there's still slack on the labor market, people who've dropped out who might come back, a lot of people working part-time who would rather have full-time work. We clearly don't have an inflation problem here or anywhere in the world. Compared to a month ago we've had -- there has got to be some wealth of fact and it's got to be somewhat less concern that we have a bubble in the stock market. And I don't know how much worse emerging markets are, but I know the direction. China, Brazil, nothing good there. And commodity prices are falling, so it's not just that the Chinese are making up the numbers. I mean copper and oil are lower. So other than the Fed saying we want to raise rates in 2015, why is it even on the table now, Joe?

MR. GAGNON: Well, I think it's what Don started with and Jon continued with. I think it's important that you have to look ahead two years. That's the horizon over which policy takes effect and, you know, up until a month or two ago I was very much sort of thinking well, if they raise rates in September that would make some sense, you know, good looking out as with the steady employment gains, you know, and two years ahead we'll probably be -- even slightly overshoot full employment if this continues. And so you would want to start the policy normalization process now. I mean this is small and gradual and they'd have plenty of time to reverse course or stop if things developed

badly. I think now I'm moving away from that and for the reasons you said. I would say it's not so much volatility in financial markets as the level. I mean just look at the stock markets around the world, including the U.S. are down five to ten percent of where they were when they last met, when the FOMC last met. That's notable. And then that has affects on spending and wealth around the world. Also the dollar is up about two percent on the broad trade weighted basis since the last meeting. And that's not trivial.

MR. WESSEL: It's because it acts as a kind of break on exports.

MR. GAGNON: It's a break on exports which has been the biggest thing slowing us down this year.

MS. CORONADO: And a (inaudible) on inflation.

MR. GAGNON: And it reduces inflation. So for all these reasons it seems to me probably it would be better to wait. And in particular just one final point, I mean given how the succession of over-predictions of growth that the FOMC has made and then disappointed for so long now -- I mean one or two years, you know, fine, whatever this noise, but it's been so many years now, and undershooting inflation target for so many years now.

MR. KOHN: But they've under-predicted the labor market growth. You know, so there's this productivity puzzle.

MR. GAGNON: There is a productivity puzzle.

MR. KOHN: So they've been pessimistic about unemployment.

MR. GAGNON: But we've been below the inflation target for so many years now that if you, you know, made a mistake and inflation went up to three percent for a year or two and then you had to tighten to bring it back, you know, that strikes me as nothing to worry about.

MR. WESSEL: So in other words, is this what you think they're thinking or is this is what Joe Gagnon is thinking?

MR. GAGNON: This is what I'm thinking.

MR. WESSEL: And do you think that they'll look at the world the way you just described it or do you think you'd diverge from that?

MR. GAGNON: Well, they do look at the world a lot, but my gut feeling is they probably have underweighted the rest of the world and the dollar a little bit compared to what I would do, but not by a lot, not that they ignore it.

MR. WESSEL: So, Julia, what do you think and where do you perceive that the markets are looking at, either like the Fed or different than the Fed?

MS. CORONADO: That's a very important point. So a couple of things there. So the market right now -- there is a message from the Fed right now that the timing doesn't matter, it's about the path. That's not entirely true for the markets that translate Fed policy. The timing does tell us something about the Fed's reaction function, how they're weighting these different developments relative to our view of the world, and it 'snot just that it's September or December with a known path, we're learning information about how the Fed is weighting these different developments. So the timing actually does matter very much.

MR. WESSEL: You mean because if they move sooner they -- it suggests they have more confidence in the economy?

MS. CORONADO: Exactly. So if they move in September it would tell us that they are not weighting the global developments very strongly, they are not weighting the inflation disappointments very strongly, they're weighting the labor market much more strongly. The markets are already signaling -- you know, the markets today --

I checked right before we came -- are about 20-25 percent priced for September. So it would be a very big surprise for the markets if they actually raised rates.

MR. WESSEL: And we wouldn't want to surprise the markets.

MS. CORONADO: And the Fed would not want to surprise markets. I think there's an important element of Fed policy that's always been there that we aren't talking about in our one to three year, and that is risk management. The Fed has cultivated this recovery so carefully, with such enormous effort for the last seven years. Are you really going to take the risk in this environment with unstable global financial markets with real macroeconomic questions about the global outlook that are not just about volatility, but the volatility came from significant data disappointments around the world. We've got the BRICS, the wonderful BRICS, Brazil, Russia, India, China, three of the four are arguably in a recession, two demonstrably, one we don't know the data very well, and India is sort of the only okay one. That's important. That was a macroeconomic catalyst to the volatility that then has rippled back onto our shores. Are we going to be resilient to that? We have a good shot at it for sure. There is a lot of domestic strength, but at this moment -- I think when the Fed decides that now is the time to begin that process the message and the moment matter very much to whether the markets say yes, this is the right and good policy or this is a policy mistake. And when I did a survey of our portfolio managers, their median expectation was about 20 percent that the Fed would raise rates, so in line with broader market pricing. And then I asked them how would markets react if they did, and the universal answer was, to some great or lesser degree, it would be a policy mistake.

MR. WESSEL: Okay. So are you in the -- what odds do you put on September?

MS. CORONADO: So I would put even lower than 20 percent, maybe 10 or 15 because I don't think the Fed would go.

MR. WESSEL: Well, Joe do you want to put odds?

MR. GAGNON: Thirty percent, thirty-forty percent.

MR. WESSEL: Jon? You can say no.

MR. FAUST: I'm considerably higher than 20 percent, but I don't have a particular number in mind.

MR. WESSEL: Don?

MR. KOHN: I'm with John and Joe. So I think it's probably less than 50-50 given all the developments Julia talked about, but higher than 20.

MR. WESSEL: And do you all agree that based on what we know now and the world will change that before the end of the year still remains a greater than 50 percent chance?

MR. KOHN: I do, yes.

MS. CORONADO: I think it's a good -- I think it's about 50-50 that we'll be able to go.

MR. WESSEL: Joe, you look a little doubtful.

MR. GAGNON: I think it's slightly more than 50 percent on the assumption that there's some recovery in markets.

MR. WESSEL: Right.

MS. CORONADO: Yeah.

MR. WESSEL: And Jon?

MR. FAUST: Yeah, so long as things stabilize.

MR. WESSEL: Right.

MR. FAUST: What I think that we've all agreed with is that the important thing about this volatility would be the macro signal that's behind it.

MR. WESSEL: Right.

MS. CORONADO: Yes.

MR. FAUST: And that's what they're going to be looking at. Well, we'll learn about whether that turmoil in China or --

MS. CORONADO: We'll learn a lot more before year end.

MR. FAUST: And if it proves that it's either impacting the globe less than we thought or not transferring here, then yes, they go. And to the greater extent it's slowing us, then they'll lower the (inaudible).

MR. WESSEL: So when I came to Washington and started covering the Fed in 1987 the Fed basically said nothing when they raised rates. I mean like that was the good thing about being at the *Wall Street Journal*, you could suss out whether it actually made a policy change. And we've gone a long way. And as a former reporter I'm in favor of transparency. But as I look at Fed communications today I sometimes get a little bit of a headache. We are data dependent, but we're going to raise rates in 2015. We don't want to be predictable, but it will be gradual. So is this --

MR. FAUST: I'm not sure they said that one. They'd be happy to be predictable, but predictions aren't deterministic and mechanical.

MR. WESSEL: Yeah, right, like I said. (Laughter) But it goes to my point, so is this just the world in which we live that it's very hard for the Federal Reserve to make conditional statements which basically amount to, if the world unfolds the way we do this is our plan, but don't hold us to it if the world changes, or could they have done a better job of framing that conversation. And particularly have all the conversations from

all the members of the FOMC who are mailing in their votes via press conference or press release or interview, is that making things better because we see the debate or making things worse because it suggests that the meeting was just a pro forma thing? Anybody?

MR. KOHN: So I -- let me pick up your last point. I do worry about this. The members of the Committee seem to have made up their minds before they come to the meeting. I haven't heard any of these people say, boy, this is a tough cal, I'm kind f leaning this way because here's how I'm reading the economy and inflation outlook and where we'll be relative to the Fed's dual mandate, but Id' really be interested and listening to what my colleagues on the Committee say. I've never heard that phrase. (Laughter)

MR. WESSEL: That's transparency, they're telling you the truth. (Laughter)

MR. KOHN: It bothers me as someone who was the Secretary of that Committee for 15+ years and sat on it for another 8. I think the discussion around the table isn't always informative, but it can be. But you have to listen to each other. So I think that's this pre-commitment. And then changing your mind every month or two when a new piece of data come out. So, yeah, it's going to be September. Well, I'm not sure now. Well, maybe. You know, I don't think that's helpful. I don't think it's framing the economic conditionality behind the decision as well as it should. It just focuses on essentially the left side of the reaction function, what you're going to do with interest rates rather than the right side, what are the economic conditions that will frame that.

MR. WESSEL: But, Julia, do think their communication has been as good as possible in the circumstances or not?

MS. CORONADO: I think there's room for improvement. I think I agree

with the point that the data dependency has -- look, there was a lot of concern I think, or general conclusion by the Committee, that giving too deterministic a path for rates, the measured pace, sort of engendered market complacency and they don't want to repeat that mistake. And I completely understand and agree with that proposition. I think the pendulum has swung too far to the other side where they're inadvertently stoking market volatility on high frequency data releases, and I don't think that really represents how they're making decisions. But it's a combination of the way they're describing data dependency publicly, reacting to different data, going on CNBC after the employment report and saying well, that's a pretty good number, you know. That's not helpful. And like the every meeting live, you know, we could go at any time, it's very data dependent, again tends to focus markets on well, if the (inaudible) number is good tomorrow we could go. I don't think that's going to be the nature of the deliberation. The deliberation at the table will be looking at the fullness of the accumulated progress, the outlook, the risks to the outlook. So I don't -- I think the tone of the framing of the reaction function hasn't been optimal and has perhaps inadvertently led to a situation where the Fed is causing market volatility, the very market volatility that might then make it difficult for them to announce a decision. Somewhere in between there is a medium where you can provide some guidance, this is how we're thinking, you know, give us a little runway to anticipate that and perhaps not, you know -- so that the dollar is not spiking ahead of every Fed meeting.

MR. WESSEL: Jon, so I think there are some people I've heard who say look -- as you did -- we're nearer to the point where having zero interest rates doesn't make sense. The anticipation of the Fed is worse than the reality. We know that everybody is nervous about what markets are going to do when the Fed finally pushes

the button. People who lived through 1994 when the Fed raised rates and thought they had telegraphed it and surprised markets and we ended with a financial crisis in Mexico and the bankruptcy of Orange County and all that. I understand why they're being cautious. And other people who look at history and don't want to go down as the Federal Reserve who repeated the mistakes of 1937 and just at the wrong moment tighten.

But that said, is there a case that okay, at 5.3 percent unemployment 0 percent interest rates are too low, the markets have been frothing at the mouth about the Fed is going to do this, would it better if the Fed just gone on with it so that people could get used to the idea that 0 interest rates are no a permanent condition?

MR. FAUST: Well, I think there might be something little to that. I suspect that the FOMC won't move just to move. That's not generally the way they work, but another way of thinking about it is that the initial move, the precise timing of the initial move is not of great import to the real side of the economy. It is to some folks who deal at that end in very short-term financial markets. And so the particulars, doing it now as opposed to a month from now or two months from now might make sense, but I don't think that whole argument will be -- that's a footnote I believe. The discussion of where the economy is going to be in one to three years, and that will turn on --

MR. WESSEL: Why then so much emphasis on gradual? You've all said that that's important, that they say it's going to be a -- why is that? What's the reason for that?

MR. FAUST: That's the statement about how they believe the economy is functioning.

MR. WESSEL: Not well in other words.

MR. FAUST: That, you know, Chair Yellen at the San Francisco Fed

earlier this year gave a nice description of this, that the economy -- the interest rates or financial conditions consistent with some continued progress in the labor market and with inflation getting back to target, that that's likely to be a gradual path. And if you say data dependent about that it would be -- we'd all love it if the economy boomed and then obviously will tighten faster, but we haven't seen that happen in the past six years.

MR. WESSEL: And we don't want people to think that we're going to get interest rates back to normal, whatever, three and a half percent over the next twelve months because then they would behave accordingly and that would have bad effects.

MR. FAUST: Yes, exactly. Thank you.

MR. WESSEL: Joe -- oh, please.

MS. CORONADO: Can I just add a point? You know, we -- you talk about zero and, you know, this extremely accommodative -- you know, I don't think we know -- certainly with the labor market it seems to be accommodative. It's not accommodative when we look at inflation. If we look around the world we used to think --

MR. WESSEL: Well, I mean --

MS. CORONADO: Okay, so it's a lagging indicator. But let me just --

MR. WESSEL: Okay.

MS. CORONADO: We look around the world and now we know that zero isn't the lower bound, we have a number of central banks at negative rates. We have a situation where there is an exchange rate mechanism that is unusual because of the divergence in the economy. So every time the Fed raises rates you do have -- or even steps toward raising rates -- you have this reaction in exchange rates which do feed back into the economy on export growth, on inflation, through a number of channels. So it's a very difficult time to calibrate and this sort of presumption that zero is just this crazy

accommodative rate. That's an assumption based on past history which may or may not be applicable. I think in Chair Yellen's speech that you just reference, she framed it as what is the true equilibrium fund rate right now. We don't really know. We know it's pretty low because at zero in the past you would have had the housing market on fire, you would have had, you know, a lot of froth in the financial markets. It would have been a very different world at zero in the past. At zero we're kind of muddling along at two percent growth. Labor market, thumbs up for sure, but no wage growth yet. So the Phillips curve isn't quite operational yet. We may be -- we hope we're getting close, we think we're getting close. So zero may not be the zero of yesteryear, and that's something the Fed has to grapple with right now.

MR. WESSEL: Okay. Joe, let's talk a little bit about the rest of the world. Don and I were in China last week and it's kind of amusing to hear some of the Chinese hadn't updated their talking points, so they're complaining about spillover from the U.S. to China. (Laughter) It seems like they learned that spillover is a two way street if you don't mind the mixed metaphor. But so to what extent should the Fed be thinking about the rest of the world? I mean does it really affect unemployment and inflation in the United States a lot if China slow a little bit, or is it that it's not just China, it's China and Brazil and Russia? Or is it that they should worry because what they do is going to have ill effects on the corporate borrowers in Malaysia and Indonesia? What is the international dimension that you think they ought to be thinking hard about? All of the above is allowed, but.

MR. GAGNON: If I can say one quick thing.

MR. WESSEL: Yeah, yeah.

MR. GAGNON: In addition to what Julia just said about near-term

interest rates, an interesting point to note is that where the Committee thinks they're heading after a few years and the Fed funds rate has gone down over time. And I think it might have a bit further to go. We've gone from about 4 1/4 percent to 3 1/2 percent and that's the median of the forecast. And then it might have something to go further. I think this sort of reflects the global move toward lower interest rates and slower growth which I think is not going to turn around soon.

MR. WESSEL: Right. The subject of an October 30 discussion at the Hutchins Center. You're invited.

MR. GAGNON: No, but I think the reason to worry about the rest of the world is not that the Federal Reserve is answerable to voters in Brazil or China, but that what happens in Brazil or China and elsewhere affects the U.S. economy and we are all an interdependent world and exports as a share of our GDP have grown over time compared to where they were 30 years ago. And so it matters a bit more. Not that we're -- we're still relatively to close compare to many countries, but we're not isolated. So absolutely it matters and I think at least large declines in stock prices around the world are going to probably reduce investment and maybe consumption around the world and that will hurt U.S. exporters. I mean U.S. exports a lot of investment goods, so stock price declines could have effects that are measurable. And the dollar being strong also is going to hurt our exports. And that takes time to show up. So, you know, a good employment report for August tells you nothing about the two percent rise in the dollar in just the past two months and the effect that will have going out a year or two.

MR. WESSEL: Okay.

MR. FAUST: I think that's an important point. That in the news we've learned about the economic strength in a number of these countries when other countries

slowed. That feeds through to the U.S. economy over quite a while. So we won't learn much about that next month either, or even the next month what the full import will be.

MR. WESSEL: So is the point that -- so let's see, we're at the beginning of September now, if we go back to the beginning of July and we say what have we learned since the beginning of July, your point if I get it right, Joe, is that whatever we thought about the rest of the world it look worse today than it did two months ago.

MR. GAGNON: Worse. And by a not trivial amount.

MR. WESSEL: Right.

MS. CORONADO: And I would also say it was always a risk, we always knew China was slowing to some greater or lesser degree. It's now very much in the data. You know, Brazil, second quarter of contraction was announced two weeks ago, or a week ago. Chinese --

MR. WESSEL: Not to mention Canada.

SPEAKER: Canada.

MS. CORONADO: Canada is in a recession. The Chinese composite PMI is at the lowest since 2009. These are hard data points that were -- where it was sort of a nebulous risk that we worried about, now it's data that we can see.

MR. WESSEL: Jon, I want to talk a minute about the Fed's balance sheet. So as I said at the beginning when the Fed cut interest rates to zero it decided that wasn't the most it could do and it engaged in several rounds of buying lots and lots of bonds. And at the moment they're holding that portfolio steady by reinvesting when a bond matures or someone pays off a mortgage. So, Jon, could you just explain for people what is the state of the Fed's current thinking or what they've told us about what they're going to do with the portfolio? And then, Joe, I'll ask you about whether you think

they ought to do something different.

MR. FAUST: Well, the Fed's announced some broad outlines or principles that they'll follow with the portfolio listings moving forward. And I think the main thing that they would like to do is get back to interest rates being the main instrument of policy. So raising rates or lowering rates, that tells you what they're trying to do to financial conditions. And that they ultimately obviously would like to reduce the portfolio back to more normal sizes. And they'd like that to just be done as, you know, smooth and with as limited disruption as possible, so that that isn't a signal about policy, that's a more of a technical exercise helping them get back to where they'd like to be.

MR. WESSEL: Right.

MR. FAUST: That's the broad outline.

MR. WESSEL: And I think there are a lot of people -- lay people think that someday the Fed has to sell off all these bonds and that if they bought bonds to lower my mortgage rate then when they sell them they're going to push my mortgage rates up. Don, that's not the way the Fed looks at it. What's wrong with that logic?

MR. KOHN: Well, I think there is something to that logic. The Fed's portfolio holdings have pushed down interest rates, partly just through a signaling of our intent and that they can take care of with communication. But also just having just the demand and taking those bonds, particularly long maturity bonds off the market, have pushed down term premium. And I think as the Fed's portfolio declines those term premiums should rise. Now to what isn't really a clear thing. But I think the direction is pretty clear. If as Jon says it's just very gradual it will hardly be noticeable, but it will be off. If they started to sell outright, and particularly if they sold in size outright, I think you'd have a very substantial effect on interest rates.

SPEAKER: Consequently you think that's unlikely.

MR. KOHN: That's exactly -- so I was going to say I don't think they'll even let the portfolio begin to fun off until they get the Federal funds up some, maybe towards one percent, because what they're worried about, what they should worry about, is we start raising rates and it turns out that things aren't as good as we thought, or there is a shock from outside the U.S. or inside the U.S., and we need to lower rates gain and cushion against that shock. Well, you have to get rates up there to do that. So I think they'll want to get the short-term rates up a good bit before they start putting pressure on long-term rates by letting the portfolio run off. So I think it will be a pretty -- if I were -- my choice would be to wait nine months, a year or so after the beginning of the raising of rates before I even let that run off.

MR. WESSEL: Joe, do you have a difference of view about what they should do than what they're doing?

MR. GAGNON: So it was two elements. One is the portfolio, a sizeable portfolio. And I think they've been pretty clear that they're not going to be selling these bonds at all, certainly for at least five or more years. And so they're going to have a very large portfolio going out probably 10 years.

MR. WESSEL: Does that pose any problem to the economy?

MR. GAGNON: No, I don't think it does. And that's -- the question is -- and I think the interesting thing is where are they heading eventually when these bonds to run off, they're basically, you know, prepaid or they mature? There's a statement where they said they want to get as close as possible consistent with, you know, monetary policy, operating effectively or whatever, which is kind of a vague statement, but sounds to me like they want to get close to where they were before although it

doesn't say that precisely. It says, you know -- so it leaves room for a larger portfolio. I would think -- personally I have argued that they should have a very large portfolio, not this large, this is four trillion, but I don't see what -- instead of going back to about one trillion, which is where they were before, why two trillion wouldn't be a good number. These are safe assets that I think people want to hold. I don't see any reason to making them scarce. I think it's actually a public good the Fed can provide, uniquely can provide. They're helping transactions --

SPEAKER: The assets being Federal Reserves.

SPEAKER: You mean the Reserves, not the other side?

MR. WESSEL: If they hold the bonds and instead they give people short-term liquid assets.

MR. GAGNON: Right. They give the banks reserves at the Fed which are the ultimate transactions vehicle for our economy. And we used to run the economy on a tiny amount of reserves which seems kind of crazy in retrospect to me. And I see no reason why we should make those scarce anymore. I think we can pay interest on them so they're not so costly to banks to hold and then banks would hold them and feel comfortable that they have that safe asset and they can make their payment on time and they don't have to scramble to turn these things over really fast every day. I think it just makes a lot more sense to run the economy that way. It's not clear, the Fed is not clear as to how close to the old system they want to go yet. I would say don't go that close.

MR. GAGNON: And more particularly they've announced that they're going to study long-run operating procedures, decide where they should go, and that will then determine whether they go back to where they were. If they say no, no, no it was as good as it gets.

MR. WESSEL: I suspect that they don't all agree on where they want to go. That's why they're being very vague.

SAME SPEAKER: And they also -- that's several years down the road now. You talk about the Fed forecasting, you know, two years from now -- that's hard. What are things going to be like six years from now that, you know, they have time to study that and they said they are studying; that I think well in advance of adopting a normalized stance they'll make stance what that normalized stance is likely to be. And they actually have left it open. They're going to have no more reserves than they need for whatever operating procedure they settle on. That's about a -- nearly a tautology.

MR. WESSEL: They'll know it when they see it. So, Julia, does the market care if the Fed had four trillion or two trillion?

SPEAKER: Or one trillion?

MR. WESSEL: Or one trillion?

MS. CORONADO: I think the market would care if the Fed started selling assets which they've already taken off the table. I think one of the unknowns is how well they're going to be able to control short-term interest rates, how well they'll be able to hit their target, how big the reverse repo facility will have to be to control short-term interest rates in light of the fact that the balance sheet is so large.

MR. WESSEL: So just to translate, so the way they used to move short-term interest rates is not going to work with a big balance sheet.

MS. CORONADO: Right.

MR. WESSEL: So they have to adopt some tools.

MS. CORONADO: They have to soak up some liquidity.

MR. WESSEL: And they have been playing with those new tools,

experimenting.

MS. CORONADO: Well, I think testing is the word that they use.

MR. WESSEL: Testing new tools. But because it's something they haven't had to do --

MS. CORONADO: Right.

MR. WESSEL: -- in real life --

MS. CORONADO: Correct.

MR. WESSEL: -- they don't really know.

MS. CORONADO: We don't really know.

MR. WESSEL: So that's one question mark.

MS. CORONADO: That's one question mark. The testing has gone well, they think they understand the mechanics, they've got some sense of the dynamics. But we actually have to raise the target rates, see where whether the rate lands in the range that they have set as the target. Again how big does that facility have to be, how does that affect funding markets? These are sort of the plumbing question. And the plumbing questions will I think have some influence on how they decide to manage longer-term balance sheet policy. If those plumbing issues work well and there is, you know, no political sensitivities to all of these machinations, then they don't necessarily need to make decisions. And as Don said they can push that down the road, get those short-term rates up to a comfortable level, and make those decisions later. And I think optimally that's where they want to go, but we're going to have to try it out and see that, one, it could be that they don't work as well and then you actually need to start thinking about reducing your balance sheet and getting liquidity absorbed that way. Or there is for whatever reason some political sensitivities to paying this much interest to banks or

having this large reverse repo facility with money market funds. You know, it's hard to predict, but --

MR. WESSEL: Okay. So beyond actually how they manage to get to control interest rates again, I think a lot of people think, god, the market must be terrified because the Fed owns so many bonds, or that somehow this allows the Federal government to do a lot more deficit spending than it would otherwise. Does the fact that the Fed has such a big portfolio have any implications for the markets that you take seriously?

MS. CORONADO: Not really. I mean on a day to day basis the -- you know, there are other market structure questions that we're facing. You know, we've seen a lot of increased volatility and different kinds of volatility than we've had in the past. That's sort of an unrelated issue or tangentially related.

MR. WESSEL: This has to do with the new rules on bank?

MS. CORONADO: New rules on banks, new regulations, you know, the high frequency trading influences. All these question marks about new market structures and how they're influencing market liquidity and dynamics. That matters very much, but in general I don't think the fact that the Fed is holding 4 trillion in assets really affects day to day market functioning.

MR. WESSEL: Okay. Don, we've been talking mostly and deliberately about inflation and unemployment and growth because those are the major responsibilities of the Federal Reserve, but we know that financial stability is also a concern if the government and a concern of the Federal Reserve. And the kind of conventional explanation from Janet Yellen and others is okay, we're going to use interest rates, maybe little differently than we did in the past, to steer the economy

towards this wonderful place of maximum employment and stable prices. And if we have bubbles or risks about financial stabilities we're going to use all these other things that we've come to call macroprudential tools so that those people who think we should raise interest rates to burst the bubble are making a mistake because we can use these macroprudential tools. So based on what we know now and your experience in the UK how well equipped is the Fed and the U.S. in general to use these newfangled macroprudential tools to avoid a repeat of the crisis?

MR. KOHN: Not as well equipped as I think they should be. So I agree with Chair Yellen and many others that have said that raising interest rates ought to be the last line of defense for financial stability, steering away from the inflation target, from the employment target. But it is there and if the other stuff fails then you can have a worse situation, like the global financial crisis, if you don't do something about it. So we have created in Dodd-Frank and in regulation a lot of new tools on financial stability, in particular capital and liquidity for banks and bank holding companies, designating large non bank institutions systemically important, subjecting them to additional scrutiny, additional regulation. So we've done a lot, but I do worry that we haven't done enough. And in particular I worry about the housing market. So if you think about where financial crises have come and financial cycles have come in the United States and many other places, it's through housing. Think about the late '80s early '90s, the S & L crisis. Certainly 2007-2008 was housing crisis. And we basically don't have tools to directly target the housing market the way many other countries, including the UK -- their financial -- we on the Financial Policy Committee can raise and lower loan-to-value ratios, loan-to-income ratios if we think there's a bubble developing, or a recession developing we can lower things to make credit easier to get in the residential housing market. And

there's nothing like that in the U.S. So I think where our tools are limited, and the last line of defense is further towards monetary policy than I would like it to be because of that. And I worry about the decision making also. The Financial Stability Oversight Council has 10 or so agencies on it. It's chaired by the Secretary of the Treasury. I'm not sure this is a good mechanism, governance mechanism for making counter cyclical financial macroprudential policy. I think the Secretary will be quite conflicted certainly in even numbered leap years (laughter) and it looks like these campaigns begin a year before that so. And the other agencies don't have the same financial stability focus that the Fed has. So I think there is room for improvement in the way the U.S. handles this.

MR. WESSEL: Anybody else have views? Jon?

MR. FAUST: One thing that Don talked -- there are sort of two things to think about that Don was talking about and I want to make sure we're clear about the difference. There is general resilience of the financial system, lots of capital and --

MS. CORONADO: Right.

MR. FAUST: And I think you'd agree that there has been a great deal of progress making everybody on average more robust, more resilient -- almost everybody.

MR. KOHN: At least all the banks.

MR. FAUST: Banks.

MR. KOHN: And the bank holding companies. Outside of that a little less clear.

MR. FAUST: Yes. I completely agree. Then let's suppose you've made the system more resilient, not as much as you'd like but you've made it more resilient, but a bubble appears.

MR. WESSEL: Right. What do you do?

MR. FAUST: Then what did you proactively -- and that's the sort of counter cyclical, and that's where the decision making is dispersed over a wide range of bodies, the tools that that wide range of bodies has aren't as good as they should be. And so responding on the fly as something happens is more difficult here than in many countries. So I strongly agree with Don on both those points.

MR. GAGNON: Just a quick one. It does argue that if that's the case then we want to be very conservative in our baseline setting of things like mortgage loan-to-value ratios and debt-to-income ratios from the start, presumably in -- and I don't know if we're really where we should be there.

SPEAKER: Yeah, that's a good point.

MS. CORONADO: And I would also like to make the point that even if you did think that monetary policy should be used remember that the worst part of the housing bubble developed very close to the peak of the interest rate cycle. A lot of the excessive credit layering and derivative developments that proved so problematic for banks happened at close to the peak of the interest rate cycle. So it's not necessarily like the interest -- the monetary policy mechanism is effective anyway in controlling bubbles. You really do need something that is far more micro oriented towards the particular structure or market that you're focused on and housing is obviously -- and the problem with housing is of course that it's very politically sensitive. You know, how the UK developed that is impressive.

SPEAKER: It's all Don.

MS. CORONADO: I'm sure he had a lot to --

SPEAKER: And how it works the first time it's a really big problem. That's (inaudible).

MR. WESSEL: Yeah, the best thing they did is the first time they did something they set it high enough so it didn't affect anybody instantly, right?

MR. KOHN: So what we did was to try and set it high enough so that there wasn't much affect and it was basically insurance against the deterioration in credit standards as house prices grows relative to incomes and other prices. But I was surprised actually, pleasantly surprised at how little pushback there was from the political environment in the UK to this action. I thought we were going to hear more about first time homebuyers and things like that. And I think part of it was set up. So there were a series of speeches by Deputy Governor, Governor, and others, worried about the house price situation and what was developing outside London and enunciating why it might be a concern. And then I think the action we took was pretty modest relative to that concern and pretty proportional. So it worked out pretty well.

MR. WESSEL: I'll take questions in just a moment. I want to pick up on one thing that Don said in the beginning and see if you have any thoughts. So you made the point, Don, and Jon did as well, that productivity growth in this economy has been very disappointing so that output per hour of work has grown very slowly. That has a lot of long-term implications for living standards and wages. Do any of you think that that's something the Fed can do anything about other than just observe it and talk about it, or is that the province of somewhere else, the reset of the government or?

MS. CORONADO: One point that Yellen has made, which is a little bit unorthodox, but I don't disagree with, is to the extent that they can actually really let the recovery develop some strong legs and, you know, really let the economy gain some momentum and strength, you can argue that could lead you to a better place with better productivity. So it really is important I think to let that recovery mature and have some

momentum, potentially giving you some spillover effects to things like -- to the extent that we think that there is a hangover of risk aversion either for firms or for people making decisions. And you actually let that fade away enough to where they're taking risks with changing jobs more often, or they're taking risks with starting new firms. Allowing the recovery to really gather momentum can lead you to a better place for productivity.

MR. WESSEL: Okay, the gentleman right here.

SPEAKER: Mr. Wessel, politely I lead you to the cacophony which arises from no communication on the point of the Fed. And I suppose the question I wish to pose is how could one be data dependent and looking at the PC at 1.2, and provide a prescription which calls for normalization. I'm referring to Vice Chair Stan Fischer and which turns me to -- which turns I suppose to the question to Mr. Faust. Looking at your paper which you presented at Jackson Hole last week how do you reconcile the necessity on the part of policy makers to be somewhat shall we say humble, but then at the same time with a call for normalization? I mean which framework are you looking at?

And, two, Ms. Coronado, how could you explain the reaction function of the Fed if the Fed does not capture development -- I'm referring to global development -- in the framework which are not part of the mandate? Which parameter do you look at and would be the coefficient you would assign to the reaction function?

Thank you.

MR. WESSEL: Okay. Jon, do you want to take the part that was directed to you?

MR. FAUST: Sure. There was a lot of discussion at the Jackson Hole symposium about the relationship between the state of the labor market and when that starts to provide pressure on -- upward pressure on inflation to get inflation back to target.

But I think the basic story that the FOMC will have to be grappling with is these issues that we started out with, that Don really kicked off the discussion very nicely with, we need to be looking one and two years down the road and do we believe that if the labor market continues to improve at the rate it's steadily improved for several years, that a year or two down the road that the pressure will have emerged. And then when you say are they going to normalize in September or even begin normalization in September, that's a very different statement than is 50 basis points better than 25. In other words, that's one step from extremely accommodative to somewhat less so. And so if they do normalize -- this is just the framework, I'm not here saying what they should do, it will be because they believe that the built in momentum in the labor market, which they're confident it will continue, and they're confident that that will over time provide this pressure. Now when inflation is at 1.2 or inflation is at 2.8, if that's due to oil prices, for example --

MS. CORONADO: 1.2 is core.

MR. FAUST: What's that?

MS. CORONADO: 1.2 is core (inaudible).

MR. FAUST: So even core is affected by the exchange rate as we talked about in oil. So it's low, but they made a policy of looking through that. Now that doesn't give you the answer, that will be the reason. That's the framework that would make sense of it.

MR. WESSEL: And, Julia, so the question on international was where does international fit in their reaction function, their domestic mandate?

MS. CORONADO: Right. So first let me just make one point on the 1.2. This is to me where the timing does matter, the optics and the message have to add up.

So if you're telling me that we're putting faith in a Phillips Curve framework that we have just written about doesn't work (laughter) and the data are at the lows and going down and I'm going to say it anyway, that sends a very hawkish message about your reaction function. You can say gradual all you want, I've just learned that the Fed -- that the Fed's version of data dependence is not what I thought. So it does matter that the data are building your case for you and you deliver the message at the right time. So I think that's where I differ from the more kind of standard academic way of looking at timing doesn't matter, it's all about the path. The timing matters very much to the message and how the market takes it.

On the international side, you know, this is a very tricky thing. The Fed has given us the SEP -- and this is kind to your point about transparency and do we have too much and does it give us a headache. They've given us this summary of economic projections that's all very domestic and they really rely on that to kind of frame their decisions, but then there's all this stuff outside the SEP. The Summary of Economic Projections is very much a Phillips Curve framework, right. We're going to grow above trend, unemployment will go through the natural rate, and we're going to have inflation coming back up to target, and as we do so we're going to gradually normalize rates. It's all a very sensible picture, but then there are all these things outside of it that actually affect -- I think your term is disparate --

MR. KOHN: Confounding dynamics, yes.

MS. CORONADO: Disparate confounding dynamics. The way I describe it is just pragmatic real world central banking, involves taking these factors into account. They've put them in the statement in various ways, they say they're taking into account international developments. I don't know exactly how they're doing that, they

don't know exactly they're doing that. They have a lot of excellent people on the staff I think it's safe to say that provide them judgments about how this is going to feed through into inflation, what are the things we're watching. So we know that they take it into account, and that is why I put very low odds on September because what central bank would raise rates after a massive I would say shock to the global financial markets -- at least sizeable, maybe not massive. The world didn't fall apart but it's a pretty big shock and a pretty big rumble that you've got to take seriously. And inflation is at the lows, so why would you do it?

MR. WESSEL: Krishna, can you stand up so the mic can find you?

MR. GUHA: Thank you. So I wanted to weigh in a little on Julia's side of this debate, also someone who is now active in the markets. Krishna Guha, Evercore ISI. It seems to me actually quite dangerous at a moment like this that the Committee might look at the markets and sort of say this is just all noise, it's all volatility, markets do silly stuff. I think we need to take seriously the possibility that there is a signal here. The market is telling you, and particularly the conjuncture of weak break evens on the hand side, and the equity sell off on the other, is telling you that the market perceives not just significant weakness coming out of the EM space, but also heightened risk that if things do get bad enough the capacity of a counter cyclical stabilization from the Fed, from others who are at -- or at best if they've hiked once or twice will still be very close to the zero bound is very small. You should expect markets to be extremely sensitive to shock risk at or near zero bound. And I worry that I haven't seen any evidence yet the Committee is taking that thing seriously enough. And in that context I think it's extremely important that the timing sends a very powerful signal. How attentive are you to those risks as well as more broadly, how determined are you to get inflation back to target in a

timely manner at a moment when the board staff can't even in their best case, you know, get it back there within the medium-term forecast horizon.

So I wanted to ask Don and Jon maybe who've taken, you know, the higher probability of September odds side of this debate, whether they agree with the sentiments I've expressed and how you would process this if you were in your old seats as policy makers or advisors to the policy makers.

MR. KOHN: Well, I think you've raised a very good point and one reason to wait is to try and -- as somebody -- Julia or Jon or somebody said, this is -- or Joe -- this is about trying to figure out what the markets are saying about the underlying economies and the disinflationary pressures that would feed back on the U.S. So a couple of percentage points slowing in China or a decline in the Chinese stock market per se would have very little effect on the U.S., but you do see broader disinflationary forces at work. And I guess one would hope that by waiting a little while you could process better what the -- how strong they were and how they would feed back onto the U.S. So that would be a reason to wait at least a little bit, I agree. But it's not about the market movements per se, it's about what they're saying about what's going on underneath.

MR. FAUST: Let me add just a couple of small wrinkles to that. I think that the case you laid out, that that's what we've been talking about, that's the one they'll be discussing. As Don said it's the underlying -- what is says about the underlying economy.

I just want to add two little bits. When you think about the market volatility I don't think you want an FOMC that says there has to have been at least three months of quiescent markets before we'll do anything. And as it turns out we never get

three months of quiescent markets, so when the Fed does lift off, whenever that happens, there will be some market turbulence fairly close in the rearview mirror because there is all the time. So that can't be the driver of policy. So then the question is what is the -- you're always deciding what is the financial market volatility telling you about how the economy is performing. And I just want to reemphasize how much will we learn about whether this weakness -- how it's going to feed into the U.S. Well, we'll learn very little about that over the next few months. That's a thing that will play out over a year. That's inevitable and that's what makes the decision a difficult one in that that's why even if Don and I are a little higher than 20 percent, why it's a difficult decision, why they will have I'm sure a vigorous discussion.

MR. KOHN: I think one more thing that hasn't been discussed yet is the other side of the weakness that might be coming from internationally is strength within the U.S. So if you thought the U.S. economy was -- the private domestic demand in the U.S. was strong enough to withstand some of this weakness and still continue to progress on labor markets and still be pretty good, we've seen -- we've had some good news on that over the last -- so someone said what do we know since July, June or July, well we've had a further pick up in the housing market, we've had a bit of recovery in spending on capital equipment, we've had very substantial auto sales. So I think private demand in the U.S. probably is a bit stronger than they thought it was going to be when they -- certainly when they made their last forecast.

MR. WESSEL: In other words you can imagine a set of circumstances where the U.S. economy is growing fast enough to justify a rate increase even if they're having troubles in China and Brazil?

MR. KOHN: Right, because that might take a couple tenths of a

percentage point off of growth, but the other stuff is adding and we are getting close to running out of slack. No one knows how much or where, but it's a pretty low unemployment rate.

MS. LINER: Hi, I'm Emily Liner, Third Way. I have a question for Mr. Kohn. The conventional wisdom says that a rate increase if it happens this year would be at the September or December meetings and, you know, everyone seems to believe that October is not a possibility because of this relatively new tradition of the quarterly press conference. Do you think if the indicators line up by October that the Fed wouldn't move for that reason?

MR. KOHN: I think they'd be a little more reluctant to move. That isn't to say -- because it would be much better to send the Chair out there to explain it, explain the context, in a predetermined way. So I think you could get a set of indicators between the September and October meetings that were so strong or prices and wages that could move, but I think they're much more likely to move in September or December, without ruling out October under certain special circumstances.

MR. TORRES: Craig Torres from Bloomberg News. I would like to as the panel what about the risks of not moving? Okay, so you don't move, financial markets say oh, look how sensitive they are to volatility. We're going into budget debates and as Jon said gosh knows what, so pretty soon the forward curve flattens out, two year notes at .7 today drop to 50 basis points, household debt starts to rise, home prices in several markets are already rising faster than income, and last but not least, the non bank lending sector says, oh boy, look at this zero rate financing and really starts to reach for high yield borrowers. So that seems to have not really been addressed by the panel. I'd like to know how risky.

MR. WESSEL: Good question, the risk of not moving. Joe?

MR. GAGNON: I think that they would feel that this would be something that if they dealt with it in December or even October if it was that strong, you know, things wouldn't have that much time to get carried away. So I don't think they think that.

MR. WESSEL: But how big a risk is that the Fed wait and you get all the bad stuff?

MR. GAGNON: Do you mean like --

MR. WESSEL: Well, of the --

MR. GAGNON: -- the signal that's sent by delaying in September even if they do tighten in December it would still have sent a bad signal that would change (inaudible) going forward? I don't think so. I mean I think --and this is I think very important and I'd like to know what my colleagues think here, but I make a strong distinction between market volatility and market levels. And I was very clear that I think that the levels that I would think about and I think that they think about and not the volatility. So when stock markets are down 10 percent relative to where they were a couple of months ago that is a bad signal for the future of the world economy. But if they bounced down and came back and they're not down at all, but there was just a lot of volatility I don't think that will stop them from raising rates.

MS. CORONADO: The risks not going -- you know, there are a few that they talk about. One is that well if we delay and things get really frothy we might have to go really fast. You know, I don't think if you delay on September --because you don't need to pin it on market volatility, you can pin it on our domestic inflation indicators aren't moving in the direction we thought, we don't have reasonable confidence yet. You know, and actually in their own statement we've had a downside risk to inflation through the

closely monitoring language that they have with regard to inflation. That's a downside bias to inflation risks. You've got to remove that before you -- you know, you have to flag reasonable confidence before you go. So one, I don't think that they've set us up for September and pushing back is some kind of signal that we're scared about markets. And I don't think that's what Janet will say in her press conference. If she announces that they don't go say well we -- the reason we didn't go is because of market volatility and so go ahead and scare us every time and we'll just back away. She's going to be couching it within the outlook and, you know, so it's not going to be we're never going to raise rates message, it's going to be, you now, progress on our mandates isn't quite what we expected and we've got some risks that are not market volatility but from the global economy. We'd like to gather a little more information. We still think we're on track. It's not going to be never. So I don't think it would be like opening the spigots to complacency.

MR. FAUST: Can I add just one thing that I think it was implicit whatever said, but it's worth mentioning. I think most everybody agrees that you can think about the risks of things getting going too fast, too much inflation or going the other way. And the risks going down are more concerning because the Fed has less tested and less available tools to help deal with that, whereas inflation is something that central banks have many times let get higher than they like around the world and they know how to bring it down, they know how those tools work. So it's somewhat less concerning. That's one point.

MR. WESSEL: In other words, they're going to make a mistake.

MS. CORONADO: It's asymmetrical (inaudible).

MR. FAUST: Yeah, there's a -- and the other point is just I think

sometimes market people would take a sign like not going in September as they're never going to move. I'm pretty sure that what you won't hear Janet say, the market scared us so we didn't move.

MS. CORONADO: Right.

MR. FAUST: I don't think the Chair will say that. On the other hand, I think it's likely we'll be -- we're unsure what all these changes in the data and what the financial markets may be telling us about the real side of the economy, and we would like a little resolution on that. And that's a much different position, and over a couple of months you see a few numbers that say we didn't fall off the table and you move.

MR. WESSEL: The woman holding the piece of paper, if you stand up so the mic can find you.

MS. WALSH: Thank you. I'll take just a second. And the Main Stream --

MR. WESSEL: And you are?

MS. WALSH: This is Cindy Walsh and I'm an academic on public policy including economics. Main Street really does kind of understand what's going on, so I'm going to just give a Main Street perspective very quickly. The numbers show that participation in the workforce is now at 61 percent, lower than in the 1960s, so unemployment is actually probably closer to 20 percent. Inflation, it seems so low because so much of it is placed on fuel and fuel is low because of the competition between natural gas and oil. That's temporary. Main Street of course is dealing with health and food issues that are spiraling to almost 200 percent. The interest rate, we're concerned about the fact that the level of debt that's being taken on specifically through U.S. Treasury bonds at the Federal, state, and local levels is so great and has been leveraged to such a height that we're almost sure that there's going to be a bond market

collapse because there's going to be an exiting of people from these bond investments. This is going to cause a crash. And so the general consensus is that inflation is actually probably now at about four or five percent; a bond market crash would bring that rate up to possibly seven or nine or ten percent and the interest rates would be forced up.

MR. WESSEL: Okay. So can you -- I hear you --

MS. WALSH: So my question is we would like to hear you address it from those perspectives because is that is the perspective that Main Street sees and I think that you're dealing with more with what the effects of Wall Street will be.

MR. WESSEL: So, let me take a cut at that. So first of all I think we probably would disagree with the numbers you use, though I am certain that many people think inflation is higher than the Bureau of Labor Statistics says. I take that. I think that one -- I'd like the panel to take one point that you made. So whether Main Street is concerned about bond market funds I'm not convinced, but a lot of people in financial regulatory circles are. And so one concern is after all this time, of all this energy of central banks all around the world holding down interest rates and making bond funds, you know, so people reaching for yield and all that, is there a risk somehow that once the Fed makes a small step towards normalization there's some kind of really big problem? Is that something worth worrying about?

MR. KOHN: You couldn't say the risk was zero of that. And I do think bond markets will -- but I don't think it's huge, that it's such a big reaction that it threatens the financial stability of the United States or the global economy. I think bond markets are likely to react in part because there are a group of people out there who say they'll never raise rates, inflation is too low they were, you know scared by the summer of 2013 in terms of the taper tantrum. They'll never even talk about it, and they'll never raise

rates. They'll always find an excuse not to raise rates, and those -- once they raise of course those people get flushed out of the market. So I'd be surprised if bond markets didn't rise, and markets aren't as liquid as they used to be.

MS. CORONADO: Bond yields.

MR. WESSEL: Bond yields.

MS. CORONADO: Bond yields. (Laughter)

MR. KOHN: Yeah, bond prices didn't fall, rates didn't rise. But I think the Fed can't let itself be frozen in those headlights. It's got to do the best it can to talk about gradual thereafter, to damp down the bond market reaction, if that's it's true view of what it's going to do, and then take the steps it needs to take and work on the bond market volatility and whatnot through other means.

MR. WESSEL: Ma'am, here in the front, and then -- yeah, there's a guy -- no, don't -- down here. Is there another mic? Rich, can you stand up so that she can see you? You can go next. Please.

MS. LEE: Thank you. I'm Jennifer Lee with Hong Kong Phoenix TV. A question about China's role in this global volatility, and a question for Mr. Kohn if I may because you just went to China. You talked about a couple of reasons including macro issues or the U.S. economy or other reasons, but I think the most popular explanation was people were worrying about China economy slowdown, but it looks like everything start this time was because they just made point mechanisms and devalued the renminbi. So do you think what China -- the role China play this time in this global (inaudible) is just purely economy problem or it is related to their policy transparency because the uncertainty? And if Chinese government really played a key role here, what should they do next to avoid uncertainty?

MR. KOHN: Well, I think both of the above. So I think people were concerned that the Chinese economy was slowing and they weren't sure by how much. And Julia cited a bunch of data that suggests that it might be really weak. Now the data that suggests it's really weak is all from manufacturing, sort of old economy stuff, and we know China is shifting to services and we don't have very good data. And my impression in Beijing was the government didn't have very good data either on what's really happening in the economy. So that was this uncertainty and the fact that the government was acting and they built in the two percent evaluation suggested they might be more worried than people thought before.

And that brings me to the second point which is communication by the Chinese government, by the people's bank. They did this on a Monday or Tuesday, they didn't have a press conference until Friday. So if you're going to change your exchange rate regime I think you need to have a very clear story about what you're doing and why you're doing it and then explain it simultaneously with your doing it. Now I know the Chinese don't have a lot of experience doing this because they don't have a domestic press the way U.S. and Europe have a domestic press pushing them all the time on what they're doing and why, but they're playing in a global economy now obviously and I do think improvement in communication and clarification of framework and more immediacy of the communication is absolutely essential.

MS. CORONADO: Can I add to that? I think that's an incredibly excellent question. You put your finger on I think what one of the biggest changes over the last two months has been, is the perception of the Chinese policy makers. So we have lots of data out of China on things like the credit situation that's been developing; there has been a lot of concerns for the last couple of years about how much credit

growth there has been, the shadow banking system. You know, ever more credit growth, ever more less GDP. And we have always worried about China as a risk. And the pushback has always been whether it's from investors or policy makers, has been oh, but it's China, they have a plan, it's a centrally planned -- it a new strong regime, centrally planned government, they'll be able to manage it. And what the news has been is that actually they don't have a plan and the plan changes from week to week and it doesn't work like they though. We hear more disparate voices out of the policy makers. This is a very big change in perception. And so I think for me a lot of the volatility and the level of change had been this is a bigger risk than we realize. And so it's taking that into -- and now it's difficult because when you're in a credit crunch you have to kind of throw different things out there and see what works, it's not clear cut. There's not a clear cut play book, especially out of China. So by its nature you're going to look a little bit lost at times. The U.S. did, Europe did. And so we're going to be in this process I think for a while as they figure out what the plan is and what is effective.

MR. WESSEL: Rich?

MR. MILLER: Rich Miller, Bloomberg. Thank you. I was wondering about December. The lack of liquidity in the markets, will that affect the decision? And two, I want to pick up on something Julia Coronado said about the communication process going forward. I would be interested in hearing what other people have to say about how they sort of don't go so -- get so deterministic as they were the last time, but don't get the sort of market carnage in Orange County, Mexico, as David alluded to, to '94-'95. As Julia said it seems difficult. Every meeting is live so react to the latest unemployment. How are they going to communicate?

MR. WESSEL: So the first question is December, that traditionally

people think there are fewer people on the markets in December so you get overreaction.

MR. KOHN: No, I'd be surprised if that held them back.

MR. WESSEL: Right.

MR. KOHN: So especially if they in their October statement for example gave a pretty big clue that it was coming in December, the markets would already build it in. And if they really think they need to move I would hope that -- and I'll bet all these people will be at their desks. (Laughter)

MS. CORONADO: They'll be at their desks (inaudible).

MR. WESSEL: Two or three weeks before Christmas. You could still go to the islands for Christmas.

SPEAKER: Yeah, it's not the typical December; this is a special December if we're at that moment. And they'll come to work.

MR. WESSEL: So it's going to be a great time to get the hotels where the hedge fund guys stay in the Bahamas that right around the FOMC will have no business. And Rich's other question about how do you manage, Jon, this tricky thing of we don't want overreaction but we don't want people to think we're mechanistic?

MR. FAUST: I think that's very difficult and that's the sweet spot that the Fed has been attempting to hit. And it's difficult. I think on this data dependence, I think sometimes that makes it seem as if the FOMC is saying we're on the edge of our seat all eh time about ready to tip one way or another. But that's not really the case. I think they need to communicate more effectively, as Don said earlier, that it's outlook dependent and the outlook changes. The outlook for a year to three in the future changes rather gradually. And so it's affected by Friday's employment report, but not by much. And that's really I think where there's been some -- in the -- in being earnest and saying look,

nothing is chiseled in stone. They've almost made it seem like -- sometimes the message can come across as if they're skittish or something and really it's outlook dependent, the outlook changes very gradually most of the time. In good times it changes -- you know, a little bit of information comes in, you marginally change the outlook, that marginally changes what the policy may be. And I'd like to see the communication move in that direction because it conveys -- Julia said earlier the market has an impression they behave one way, I don't think they behave that way Julia said.

MS. CORONADO: Right.

MR. FAUST: And that's what we're talking about, conveying more of this outlook dependence.

MR. WESSEL: Gentleman against the wall.

MR. FARMER: Thank you. I'm Nick Farmer. Can you speak to some of the macroeconomic issues, things like changing demographics, aging the population, changing the fact that U.S. corporations sell more and more of their product overseas, automation, robotics, artificial intelligence, are these things impacting the interest rate productivity labor issues in a way that's dramatically different that it has been in the past 50 years? Does the Fed takes this adequately into account? What are they doing about these issues?

MS. CORONADO: Good question.

SPEAKER: Yeah, it's a big question. I can only answer pieces of it, but I can also throw one more piece in which is so some people have been arguing that a number of things which you've cited, demographics, slower changes in productivity, are causing the interest rate that the economy needs in equilibrium to go down, to have gone down. And I think we've seen that and I think the FOMC itself has seen that because

when you look at their long-run projection where their policy rate will be has come down from about 4 1/4 to about 3 1/2. And as I said earlier I think it may have a bit further to go. But that's more of a long-term thing. These aren't things that happen and change day to day or month to month either. This is more of a trend, but you said over 50 years so I think it's a trend.

Let me add one big thing that you didn't mention that I do a lot of work and that is the behavior of foreign countries and particularly foreign governments in terms of saving and investment. It used to be that developing countries would borrow for development and then they would borrow from us and they would invest at home and we would export to them and they would grow. And then there were a lot of problems with that strategy and sometimes the investments didn't pay off and there were debt crises and stuff. And about 10 years ago after the Asian financial crisis countries really made a dramatic change in that strategy. And what you see now is countries don't borrow for development on the scale they did before. And in fact on average emerging markets are vast net lenders to the U.S. and Europe, but especially to the U.S. And so we have a massive wall of money coming in instead of going out that we never had before. And that I think has hugely contributed to low interest rates in the U.S. It was also holding the recovery back to some extent because, you know, normally in a recession when we have a trade deficit going into the recession it goes away during the recession and maybe it comes back gradually later. Well, we only lost half of our trade deficit in this recession despite the depth of it and it's starting to come back already quite a bit. So I think this is a change in the dynamics of the world economy that keep interest rates down in the U.S.

SPEAKER: This was Bernanke's global savings glut.

SPEAKER: Yeah, right.

MS. CORONADO: Which would be changing. I mean that's actually one of the changes we've seen out of China is that they are now running down their FX reserves for the first time in 25 years. That could cause a change in interest rate dynamics that we don't know yet.

SPEAKER: Well, the key thing is --that I see for this year, absolutely, but that strikes me as market volatility that's probably not going to persist, but we'll see.

MS. CORONADO: Or a change in exchange rate we're seeing.

SPEAKER: It hasn't changed, not really. (Laughter)

MR. WESSEL: The question is what --

MS. CORONADO: I want to make one point -- I'm sorry, one near-term point on the demographics, one near-term implication for policy that we might even see in September is there is a debate and a discussion about whether that aging population has led to lower natural rate of unemployment. And you might get that because there is less turnover, people are in their jobs longer. And so, you know, we think of the natural rate as that sort of level of churn in the labor market. It might be a lot lower because of demographics in part and therefore you might have more slack than you thought and we might see that in the Summary of Economic Projects in September, that you have a lower natural rate because of in part demographic issues.

MR. FAUST: And just to -- demographic issues may imply that the unemployment rate isn't as good a single summary statistic as it used to be, that we have to think more about labor force participation, especially as it interacts with the deeper session we've had. You know, are some of the folks that left the labor market perhaps retiring early because they lost their job and didn't see prospects. If the economy is more healthy do they come back and work for a while? Those are important questions. And

you ask does the Fed think about these and deal with them adequately. They're very complicated topics, they're definitely all being discussed. You can see it even in the minutes and the speeches of the FOMC members, in the working papers put out by the Fed. Does anybody have a great handle on those, you know, that we have yet to see. They're difficult issues about interactions between long-term changes in our economy and ones that may be precipitated by the financial crisis but will go away.

MR. WESSEL: Want to add anything, Don?

MR. KOHN: No.

MR. WESSEL: Okay. With that please join me in thanking our panel. (Applause) And if there are papers or cups at your seats and you could take them and put them in the recycling at the back we'd appreciate it. Thank you very much. (Applause)

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