

Unedited Rush Transcript

Conference: Labor Market Slack: Assessing and Addressing in Real Time

Keynote Speech: Patience Is a Virtue When Normalizing Monetary Policy  
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Chair: Adam Posen, Peterson Institute for International Economics

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Adam Posen: Okay, ladies and gentleman, data hounds of all ages, lunchtime labor slack is closing. It's my privilege as president of the Peterson Institute to introduce our keynote luncheon speaker Charles Evans.

Charles is of course—save your applause--you can applaud uproariously in 30 seconds. Charlie is of course the ninth president and Chief Executive Officer of Federal Reserve Bank of Chicago. As many of you know, he's been largely a career Chicago Fed person serving as Director of Research and Senior Vice President. He's now been serving as President since September of 2007 so this is his lucky seventh year we've just completed. Of course, Charlie has a very distinguished academic publishing record, publishing in major journals like the JPE, the *American Economic Review*, QJE, the JME. I don't think I could hire him.

He's also been an outstanding citizen of Chicago, active with Chicago Council on Global Affairs with whom we have a lot of exchange. Nick Lardy will be presenting there I think next month. He has taught at U Chicago, U Michigan. Has his Doctorate in Economics from Carnegie-Mellon University and luckily has not let that interfere with his perceptions of the economy.

I want to commend all the speakers in the first half including particularly the last panel where we've had the ability of officials to be substantively engaged without getting themselves into trouble. I count on Charlie to cause a bit of trouble not for himself, but for those of us who always need to be challenged in our thinking when you're dealing with the difficult monetary issues. I think President Evans does a great job of making that challenge come out. So, thank you Charlie for joining us today. Now, you can applaud.

[Applause]

Charles Evans:

Thanks Adam. Thanks for that very nice introduction. It's a pleasure to be here at the Peterson Institute. And, thanks to the organizers of this very nice conference on labor market issues.

The functioning of the labor market is always of great interest of both academics and policymakers. But today, with the collapse of labor demand during the great recession and ongoing structural changes, judging the health and future of labor markets is both especially challenging and important. The work presented at this conference and others like it offer an opportunity to integrate the most recent research with the thinking of policymakers and so I greatly appreciate being here today.

In keeping with this theme, I will offer my views on the labor market, then I will discuss my views on the general strategy for deciding when and how we should begin to normalize monetary policy. For some reason, my last many presentations, I have done a slide deck that I like a lot, but as one measure of our forecasting prowess at the Chicago Fed, we decided not to go with that deck today.

Okay, and finally, before I begin, let me note that the views I express are my own and do not necessarily represent those of my colleagues on the Federal Open Market Committee or within the Federal Reserve System.

Five long years have passed since the trough of the great recession in mid-2009. Late that year, the unemployment rate stood at an astonishing 10%. Since then, we've made significant progress in moving the unemployment rate back to a somewhat more normal level. Yet, at 6.1%, it remains too high. And as we have heard all morning, other measures of labor market activity remain suppressed.

We have underperformed on the inflation front as well. Since 2008, year over year total PCE inflation has averaged just 1.4%, well below its 2% target. Today, PCE inflation stands at 1.5% and is expected to move up only slowly toward the FOMC's target. Nonetheless, we've come a long way in healing the injuries the financial crisis inflicted. Certainly, monetary policy has been doing some heavy lifting.

The Federal Reserve responded quickly to the unfolding recession by cutting the Fed funds right to near zero by December 2008. At the zero lower bound, we then turn to unconventional measures to provide further accommodation such as large scale asset purchases and forward guidance about the Federal funds rate.

In the fall of 2012, with the unemployment rate hovering stubbornly at around 8% and core inflation steadily drifting lower than our 2% target, the Fed introduced open-ended asset purchases and later forward guidance

that related Federal funds rate actions to thresholds explicitly expressed in terms of our policy goals.

Today, these efforts have helped the economy make impressive progress toward our employment mandate and appear to be moving us closer to our 2% inflation target as well. With the economy undershooting both our employment and inflation goals, monetary policy does not presently face a conflict in goals. Actions that support employment growth also help move inflation up toward our target. Yet, as I look to the future and assess risks, I foresee a time when a policy dilemma will emerge. Namely, we could find ourselves in a situation in which the progress or risks to one of our goals dictate a tightening of policy while the achievement of the other goal calls for maintaining strong accommodation.

So what happens when a conflict emerges? In such cases, the FOMC has said that it will follow a balanced approach to achieving its policy goals. I will elaborate at length later, but let me summarize how I think we should operationalize this approach today.

We should keep our focus on our policy goals and to be highly attuned to the likelihoods and costs of missing those goals. To me, the risk from the zero lower bound constraint on policy rates are paramount. Accordingly, before the Fed raises rates, we should have a great deal of confidence that we won't be forced to backtrack on our moves and face another painful period at the zero lower bound. We should be exceptionally patient in adjusting the stance of US monetary policy even to the point of allowing a modest overshooting of our inflation target to appropriately balance the risk to our policy objectives.

Of course, to judge the success of policy, you have to know when you've actually reached your targets. Knowing when we hit our inflation target is straightforward. After all, a 2% increase in PCE prices is an easily identifiable object. But full employment is a far more nuanced concept. As the extremely relevant research presented at this conference makes clear, judging the degree of slack along these many dimensions is a difficult and a complex task, but it is one that is critical for the conduct of monetary policy. We must have a good idea what constitutes achievement of our full employment target.

Our Chicago Fed research has been working long and hard, and in my remarks today I will briefly talk about some of our results that touch on several of the most contested labor market issues on the table today. These involve labor force participation, job openings and wages. To give you the punch line, this research and work done with by others in the field lead me to conclude that although we made great strides, a good deal of slack remains in the labor market.

Now, as everyone in this room is aware, the labor force participation rate has fallen throughout the recession and recovery and is now at a 35-year low. As Julie Hotchkiss described earlier this morning, it is well understood that much of the decline is due to trends that far predate the great recession. The movement of baby boomers into retirement ages and long running declines in teenager and prime age male participation would have significantly reduced labor force participation rates independently of the economic downturn.

Chicago Fed economists first did work on the prospects for a declining labor force participation trend back in 2001. Near the time the rate peaked at just over 67%. Even after revisiting this topic numerous times and with multiple generations of research assistance running these programs, their views about the trends that are consistent with the composition of the population and the labor market near equilibrium have not changed much since then. Among the many robustness analyses they performed, their models produced nearly the same trend for labor force participation as they have since 2001.

Depending on the details of the specification, Chicago Fed economists estimate that at the end of the second quarter of 2014, the labor force participation rate was between half and one and a quarter percentage points below trend. Furthermore, the participation rate was as much as three-quarters of a percentage point below predictions based on its historical relationship with the unemployment rate.

This disparity suggests that they're likely as an extra margin of slack in labor markets beyond that indicated by the unemployment rate alone. It is interesting to dig further into these labor force participation gaps. Virtually, all the gap during this cycle has been due to withdrawal from the labor markets of workers without a college degree. By contrast, a participation gap never materialize for college graduates even during the depths of the recession. There's no simple explanation for this striking contrast.

It could be yet another symptom of long running, but difficult to model trends in the economy such as job polarization and changes in social programs, which particularly impact the lower skill workforce. Regardless, the divergent work behavior across education groups strikes me as an important fact and deserving of much further research attention.

This brings me to the issue of hiring and job openings. The job openings rate is measured by the JOLTS data started climbing immediately after the recession and made it back to its pre-recession high this summer. Yet

despite some improvement, the JOLTS hiring rate remains disappointingly below where it stood before the recession began.

Why might firms advertise openings aggressively, but be slower to fill them? Posting a vacancy is only part of the hiring process. Jason Faberman of the Chicago Fed in collaboration with Steve Davis of the University of Chicago and John Haltiwanger of the University of Maryland estimate that the overall effort that firms actually are putting into filling a job vacancy fell by over 20% during the recession. It has been slow to recover since, and today, still stands 8% below its 2006 peak and for that matter, below where it was any time during the last expansion.

I just have to say we put this speech together a week ago and it's reading incredibly well on all the points that were talked about here, right? Whether or not the BLS is going to be able fund some additional efforts to get at these issues are of great importance and so I look forward to any success that you have there.

Davis Faberman and Haltiwanger argue that low recruiting intensity may reflect employers' increase in hiring standards. It could be that hiring standards become more stringent during an economic downturn. For example, if there's an unusually high degree of downward nominal wage rigidity, as San Francisco Fed economist, Mary Daly and Bart Hobijn document for this cycle, then employers may temporarily respond by filling fewer openings. If this story is true, then the high ratio of vacancies to hire is a further indication of slack in the labor market until the delayed wage adjustments are completed.

Alternatively, more stringent hiring standards might signal a persistent structural problem. For years, I've been hearing businesspeople complain of difficulty in finding sufficiently qualified candidates. Furthermore, we hear anecdotes about firms being extremely picky and waiting for the perfect applicant. These behaviors may be indicative of a skills mismatch between jobs and workers. If this is the case, then it is possible that the steady state level of vacancy rate has increased, which would help explain why the improvement in vacancies we've seen over the past few years has been slow to translate into similar progress on hiring.

If skills mismatch were an ongoing problem, we'd expect to see wages rising for those in the skills and demand. There's evidence of increasing wages in some occupations, but wage growth in general continues to be very modest at about 2.25% per year. And we've had quite a discussion with that already this morning. That's a long way from the 3% to 4% benchmark implied by our productivity growth and our inflation objective. Indeed, over the past three years, the unemployment rate has fallen by a percentage point per year, yet real wage growth has barely budged.

It's hard for me to imagine a full labor market recovery without genuine improvement in compensation growth, but maybe I'm wrong. Has the wage Phillips Curve completely broken down? Some claim the answer is no, you just have to look at the right measure of unemployment. Alan Krueger, Judd Cramer and David Cho among others have shown that the relationship between real wages and a short-term unemployment rate during the cycle has been in line with historical norms. So their model implies nominal wage growth should be returning to something close to the fundamentals implied by productivity growth and inflation.

My staff's research comes to a somewhat different conclusion using models similar to those estimated by Michael Kiley, they find that pools of potential workers, other than the short-term unemployed, notably the medium term unemployed and the involuntary part-time workforce substantially influenced wage growth at the state or MSA level. Today, medium term unemployment is down a good deal, but the involuntary part-time workforce is still very high. According to their model estimates, if labor market conditions were at their 2005 to 2007 levels, average real wage growth would be roughly half to one percentage point higher over the past year. Another sign of the cyclical shortfall in labor market health.

To sum up, with many important measures of labor market activity still well short of our estimates of cyclical norms, I believe it is a bit premature to say that we are close to our full-employment target. That said, while it is taken longer than anyone would like, our progress has been good. And there's good reason to anticipate that we will achieve full employment and price stability within the FOMC's current forecast horizon. Indeed, in the committee's Summary of Economic Projections released about a week ago, most participants anticipated that the unemployment rate would return to its long run neutral level by the end of 2016 and that inflation then would be in the range of 1.75% to 2%.

So now, let me turn to my views on monetary policy. I can't speak to my FOMC colleagues' forecast in how they interact with their views regarding appropriate policy. But for my part, I think it's more likely that we will achieve our employment mandate before inflation is clearly headed back to 2%. Conceptually, this could raise a policy dilemma. Achieving our inflation objective would call for strong accommodation, while achieving our employment target usually would call for earlier policy normalization.

However, the story is even more complicated than that because important risk factors also come into play. In some ways, the insight from Nobel Laureates Lars Hansen and Tom Sargent regarding robust control evaluations helped form my assessment.

I say two important and divergent ways my forecast could go wrong. One is that I may be overestimating the underlying strength in the real economy. Our exit from the zero lower bound may not be easy. Guarding against this risk calls for more patient removal of accommodation. The second is that I may be wrong about the inflation outlook and we could be poised for a much stronger rise in inflation than I am expecting. This risk calls for more aggressive rate hikes.

How do I think policy should balance these divergent risks? How should these risks affect my views about how to follow the FOMC strategy of pursuing a balanced approach to achieving our policy goals? In my mind, current circumstances and a weighing of alternative risks mean that a balanced policy approach calls for being patient in reducing accommodation. That is being patient about when we first increase the Federal funds, right? And being patient about setting the pace of rate increases once we have begun to move. Let me explain how I get there.

I've said many times that I agree with Minneapolis Fed President Kocherlakota. Policy at all times must be goal-oriented. Our experiences since the crisis began and current economic conditions are highly unusual. The FOMC should not simply set its policy instruments by mechanically aligning them with historical norms if those norms are not relevant harbingers for the attainment of both of our dual mandate goals, rather, our policy instrument should be set to achieve our ultimate goals as efficaciously as possible giving current and perspective economic conditions all the while with an eye on managing against the important risk to the outlook.

So what does that mean now? I believe that the biggest risk we face today is prematurely engineering restrictive monetary conditions. In this scenario, the FOMC could misjudge the presence and magnitude of economic impediments and misread the recent progress we have made as evidence of sounder economic trends.

If we were to presume prematurely that the US economy has return to a more business as usual position and reduce monetary accommodation too soon, we could find ourselves in the very uncomfortable position of falling back into the zero lower bound environment. Such an outcome could be a serious setback to the timely attainment of our dual mandate policy objectives.

This risk consideration means that the decisions to lift to fund's rate from zero should be made only when we have a great deal of confidence that growth has enough momentum to reach full employment and then inflation will return sustainably to 2%. We should also proceed cautiously

and keep the path of rate increases relatively shallow for some time after we began to raise rates. This approach will allow us time to assess how the economy is performing under less accommodative financial conditions and reduce the odds of overaggressive rate hikes choking all progress towards our policy goals.

Now, past experience with the zero lower bound also counsels patience. History has not looked kindly on attempts to prematurely remove monetary accommodation from economies that are in or near a liquidity trap. Now, in the interest of time, I'm going to skip over some of the material in my speech where I go through on accounting of the US experience in the 1930s where we had a very difficult time getting out of that. The Japanese experience where they experienced a couple of occasions where they also had difficulty, and most recent Eurozone circumstances where those are extremely challenging circumstances. I think it's pretty obvious to people in this room that exiting the zero lower bound is very challenging.

Furthermore, the zero lower bound often comes hand-in-hand with undesirably low inflation or even a falling price level, carrying with it the associated cost of debt deflation in the real economy. Now, what about the other risk to our policy goals that I mentioned? The risk that the US economy could face pricing pressures that accelerate rapidly and ultimately leave inflation far above our 2% target for an unacceptably long period of time.

At some point, when the economy has clearly overcome the remaining impediments from the largest economic and financial downturns since the Great Depression, the odds of inflation rising noticeably above target could become palpable. But such a breakout is just not at all very likely today. Indeed, many Fed critics have been voicing this concern all the way to 2009 and it hasn't even come close to happening yet.

What if inflation just run moderately above target for some time? Well, I see the costs of this outcome is clearly being much smaller than the costs of falling back into the zero lower bound. First, I believe the US economy could weather the modest increases in interest rates that would be needed to keep inflation in check if we found ourselves in that situation. Such rate increases would be manageable for the real economy. This is particularly true of industry in labor markets have already made the most difficult reallocations of jobs and overcome other factors so that productive resources are more efficiently and fully employed.

Second, as I've noted many times in the past, a symmetric inflation target means we should be averaging 2% inflation over time. We've averaged well under that 2% mark for the past six and a half years. With a

symmetric inflation target, one could imagine moderately above target inflation for a limited period of time as simply the flipside of our recent inflation experience and hardly an event that would impose great costs on the economy.

All right, so let me wrap up. As I think about the process of normalizing policy, I conclude that today's risk management calculus says we should err on the side of patience in removing highly accommodated policy. We need to solidify our confidence that our ultimate exit from the zero lower bound will occur smoothly and in a way that sustains our escape from it. A corollary to this is we should not shy away from the policy prescriptions that generate forecasts of inflation that moderately overshoot our 2% target for a limited time. Such a policy strategy more properly balances expected costs and benefits and it would leave me with much more confidence that inflation will not stall out below target once we start raising rates.

I agree with Atlanta Fed President Dennis Lockhart in thinking that we ought to be “whites of their eyes” inflation fighters. The last thing we want to do is fall back into the zero lower bound. Indeed, such a relapse would be a sign there were something else going on that was preventing the economy from being as vibrant as we thought possible. Consequently, I'm very uncomfortable with calls to raise our policy rate sooner rather than later. I favor delaying lift off until I'm more certain that we have sufficient momentum in place toward our policy goals, and I think we should plan for our path of policy rate increases to be shallow in order to be sure that the economy's momentum is sustainable in the presence of less accommodative financial conditions.

Thanks very much. I look forward to your questions.

Adam Posen: Thank you President Evans, Charlie, that was terrific. Usual blend of forthrightness, research thinking and awareness of your colleagues and the issues you all face on the FOMC. I'm sure there are many questions to be raised from our distinguished audience, but let me just post a couple of things to you first.

Charles Evans: Sure.

Adam Posen: I'm not going to try to play “gotcha” on what votes are going to be when or what dots are less dotty, that's for the audience to do. Sir, stepping back a second, your last comments citing Dennis Lockhart “whites of our eyes” on the inflation. That's a very different point of view from what was advocated by some—even including me—10, 15 years ago about inflation targeting or as [inaudible 00:26:18] would say, inflation forecast targeting. Is this is conscious shift away from that kind of framework and does this

have to do with just context that you think there aren't inflation risk or inflation's slow moving or is there something more fundamental about how central bank should be thinking about things?

Charles Evans: Well, I think it's probably most relevant reply is that I think it's a function of the circumstances that we've just gone through. My concerns and the risk that the—what appears to be very sound fundamentals that we're facing in terms of growth. I mean, we're looking for—I, myself and I are looking for 3% growth in the real economy over the next 18 months and perhaps longer. So there's good reason to believe that we're going to be closer to a time when we should raise rates.

But, I do believe that it's very important after a long period of undershooting our inflation target when we've announced in January of 2012 that our target is 2%, we'd never hit 2% during that time period and we need to convince people that it is not a signaling for monetary policy. I think it is—I know that when I agreed to that, I can't speak exactly to what the committee was, but we've said that it's symmetric. And, if I had thought that that was intended to be a signaling, 2% is not the right number if that's the case. So, I think it's very important that we get past that.

Once we get to a point where inflation is much more in line with our objectives, the economy is doing well, the zero lower bound environment is well past us, then I think that the general approach to inflation targeting relatively speaking continues to be a sound one and that we should be forward-looking.

Adam Posen: Great. Second question, it would be ... if we're thinking about—I'm trying to go away to phrase it. I'll do the fairly obvious question first. You gave a speech in which you've spoke about patience and you made a lot of very practical-minded policy advice. There is a study drumbeat of people, including some people very experienced in central banking community, who are impatient to raise rates. Not necessarily because they are concerned about inflation per se, but because they believe keeping raise low for a long time has its own inherent costs; this often comes under the heading of financial stability.

Should this be figuring into the committee's deliberations and how do you view those risks as well? I mean, you sort of implied how you view them, but if I can try you out of it.

Charles Evans: Well, we have to be very mindful of all of the risks that the economy is facing. Financial instability risks would be an important one that could jeopardize the recovery if all of a sudden things turned extremely restrictive and that became a problem. We, during our deliberations, take account of financial market conditions, how things are playing out, what

the expectations are going forward for the fundamental underpinnings of the economy in terms of credit conditions and all of those things.

But the question that you're posing is more delicate than that and it gets at what the ultimate objectives of monetary policy are and what the tools are. So, my own viewpoint is that we're in a zero lower bound environment, that when you look across history in around the world it's just a horrible situation that's extremely costly. All of the labor market issues that we've talked about are much worse because of this time period where a policy hasn't been able to respond the way that it did normally. That has led us to keep interest rates lower for longer.

And let me just say, even if we had tried to raise rates earlier, my expectation is that that would have been a failure. We would have had to fall back. They would have been at zero and it's not strictly monetary policy, but it's the real nature of the economy, the real nature equilibrium interest rates are—they're probably below zero at the moment. So, we need to help support that as best we can.

But what if? What if we get to a situation where this is incompatible with financial stability, there's too much risk taking and there's too much exuberance and then that could lead to a fall in asset values and credit conditions could deteriorate? Well, if we had to raise rates, then we would immediately be announcing that we're going to expect inflation to fall and unemployment to go up. We would be abdicating on our responsibilities for normal monetary policy. That would be a failure.

And I would say if we ever had to take such an action, somebody should write a letter to everybody, be very careful in stating, "This is a big problem because we're having to take an action that's against our monetary policy objectives." Now, the good thing is we have other tools that are supposed to be used to address financial instability, exuberance and carry trades and things like that. We have supervisory policies. We have macroprudential policies, since Dodd-Frank we have the [inaudible 00:31:32].

And, I think we have to use—we have to exercise good judgment, but we have to be very careful to utilize those tools to address any financial instability risk that we might be seeing.

Adam Posen:

Great! Thank you Charlie. All right, I'll now put it up through our audience just to recap. We have a traveling mic upfront. I'll recognize people. People towards the back, if you want to stand at the mic, I'll alternate between the front and the back. Please identify yourself when you ask a question even if you were on the program earlier because some people are just tuning in for Charlie, silly them.

First right there.

Jan Hatzius: Jan Hatzius, Goldman Sachs. I was curious how you think the committee should be providing forward guidance in the run up to the first rate hike regardless of when that hike ends up coming? You talked about patience. Patience was a term that turned up back in 2003, 2004 as one of the graduated guidance [inaudible 00:32:34] with sort of a calendar dimension. Can you talk a little more about what you think a sensible approach would be to sort of manage that process?

Charles Evans: Well, our current forward guidance language in our statement refers to it being—we expect it will be a considerable period of time after our asset purchases conclude that the fund's rate will continue to stay at zero essentially. Now, I've got to point out to everybody that that paragraph has an awful lot of conditionality baked into it. It indicates that it is our expectation based on our forecast; it will be looking at actual and realized outcomes in order to make those judgments and mentions our 2% inflation objective and all the other things that we look at.

So, Chair Yellen has stated very carefully that it's conditional just like I mentioned, and that if things exceed our expectations, the economy is doing better, we will draw forward to date where we would increase the funds, right? And if things slow down and things don't turn out the way, we will push back the date.

So, now, in that setting, we're going to have to craft new language in order to provide an indication of this tendency. You mentioned patience was used in 2004, that didn't last very long, maybe one or two meetings actually, increase the fund's rate at a measured pace that lasted 17 meetings of 25 basis point increase, considerable time was used in 2003, we're using considerable—the Lexicon is very small actually for forward guidance language. And we're going to have to somehow craft a paragraph—or a few sentences, however long it is—to indicate that we're going to still consider the state of the economy.

As we get closer, we'll all sort of know it. I know people in the public would like to know exactly the date and time that it will occur, but that's not within our ability to do it and so we'll try to continue to provide information on that.

Adam Posen: That's a longtime opponent of forward guidance. I'm very glad to hear it's not getting in the way of real decisions. At the back mic and then over at this table.

Jared Bernstein: Jared Bernstein from the Center on Budget and Policy Priorities. First of all, I want to thank you for what I found to be just a tremendously thoughtful and insightful speech. You mentioned 3% to 4% as a rate of wage of growth that would be comforting given productivity growth and inflation targeting and that make sense to me. But I wondered if there is more room for a noninflationary wage growth coming from rebalancing of factor shares?

The fact that compensation is a share of national income is down numerous percentage points and such rebalancing would be favorable both in terms of adding a point or two to that growth scenario, but also in terms of the kind of inequalities that have concerned a lot of us. I wonder about whether there's noninflationary room for growth there.

Charles Evans: So, you've touched on a number of important issues. Only some of them are directly relevant for monetary policy considerations. So all of the income inequality issues I think are very important to the extent that they have an influence on the growth path of the economy and inflationary developments. That would be a very important thing to understand and try to craft a strategy around.

But the more normal type of issues or the 3% to 4% wage growth that I mentioned, that's sort of a guide post for me that I think that it's extremely unlikely for it to be inflationary if it comes in at 3% to 4%. That's productivity growth, plus what inflation ought to be, unit labor costs ought to be increasing about the way they ought to for just normal inflation at that time.

So, you're absolutely right. It could be the case that other developments allow stronger wage growth than that before inflationary pressures emerge. We're going to be looking at all of these issues. I know that's never very comforting and everybody would like to know exactly the magic bullet, silver bullet indicator for understanding when these things are going to happen. But I point the wage growth because I think it's an important component of inflation picking up that wages actually go up, but they could go up more strongly than that and us not see inflationary pressures and so then I would not be concerned about that in terms of our monetary policy issues.

Labor share has been lower. It's been much lower than what I was taught as a graduate student at Carnegie-Mellon; 64% labor share was a rock solid astronomical constant use for calibrating real business cycle models and that number has moved around a lot. Interesting research by some economists at Brookings and New York Fed has indicated that over time there has been play in that share, but it could be the case that there's some recovering in that. It might not be inflationary.

Ultimately, inflation movements are going to be very important for our policies though. I mean, so much of what I was talking about is like I know labor market slack's very important. It's been important for a while. It seems to be improving. I think we're probably moving to the point where inflation is really going to be the telling indicator. And, I don't think we should be overly concerned if we overshoot that 2% objective modestly.

Adam Posen: Great! At this table.

Male Speaker: Hi, [inaudible 00:38:17] from [inaudible 00:38:18]. Let me move a little bit to the risk balance that you described. And I would like to know a bit more how you think about the risks and how you balance the time you have left off in the pace of hikes coming afterwards?

And, for that, I would base my question on two analytical facts, which I think is too true. One is that the Phillips Curve tends to be non-linear so as we got closer to let's say a zero unemployment rate gap, historically, you tend to have more wage pressures than if you are farther away from it. So that coefficient, the Phillips Curve is flat, but not flat in all the segments of the unemployment gap.

The second analytical point which I think is also true is that the housing market suffers when mortgage rates rises too fast. Okay, we saw that to [inaudible 00:39:15] in 2013, but that all depends, that if you go back in history, you also see maybe sales, home sales declining, by more than would be implied by the level of the mortgage rates just because the mortgage rates themselves grows too fast.

So if you put these two signals together, these two analytical points together, I could see an argument for actually the [inaudible 00:39:37] to begin hiking earlier to be able to hike slower given all the uncertainties and given that you're getting close to that unemployment gap rate that is [inaudible 00:39:51] the portion that is more—that is steeper. So how do you see that type of risk playing out in your ...?

Charles Evans: Right. There's a lot in that question. It's some academic level with respect to a particular forward looking macroeconomic level. There's not necessarily going to be a lot of difference in these monetary policy strategies because it's forward looking, it's going to take into accounts or the present value of that entire path and it's not going to judge that many differences from an early liftoff shallow path as you mentioned as opposed to a delayed liftoff steeper path. There's a timing for that where there should be roughly—not very different in that regard.

That's at the mechanical level though. In fact, how markets react and the taper tantrums sort of showed us that those issues aren't well abided by in financial markets. All of a sudden they see things move, they start projecting something beyond that. I think the housing issue is one of the impediments that when we talk about why the funds rate might be lower than participants' long run normal funds rate for some time because of things that are going on.

I think the housing impediments might be one of them. In fact the mortgage credit is more expensive, the underwriting more difficult and so, everybody has got to have a pristine record and the incoming first-time homebuyers are more challenged in terms of downpayments and all of that.

So, I think that's an impediment and so that's another reason why as we begin to raise rates, as interest rates begin increasing and longer rates increase by more. We're going to want to have confidence that the fundamentals are strong enough to sustain that.

So, if we end up lifting off earlier than what my SEP submission is for appropriate monetary policy—it's extraordinarily likely that we will in fact since I'm a 2016 dot—I think one mitigant for me would be a shallower pace and patience and I think if we give ourselves 12 months of time when we're in that environment to sort of see how things are playing out, it could pay off greatly for us in terms of confidence and a better performing economy.

Adam Posen: Cool. That gentleman and then that gentleman. And again, Jared demonstrated the back mic works as well.

Charles Evans: Do you jump the queue if you do that?

Adam Posen: If you're not lazy and you stand up, you can get a little ahead.

Felix Vardy: Thank you very much. Felix Vardy, IMF. I was wondering in light of what you said, what your thoughts are about moving to price level targeting and whether that would take care of some of the concerns you had?

Charles Evans: So price level targeting is a very interesting approach that appeals to economists. I've—

Adam Posen: Excuse me.

Charles Evans: So, I think these are sort of the issues. So, if in fact everybody behaves in a pretty highly forward looking manner so that they understand how our policies are going to respond to the way things are playing out, then you would reap a benefit whenever inflation was above the price line,

everybody would know that you're going to be a little tough. You're going to have the credibility, you're going to get back to the price line and I think the cost of getting there would be a bit lower and you wouldn't overshoot as much once you got there. The same thing on the downside when you undershoot, they know that you would be accommodative.

I think one thing that has given most people pause is whether or not they think there would be sufficient credibility and wherewithal of the policymakers if we saw a big spike in inflation. And again, the details would matter, is it going to be a bat [inaudible 00:43:51], I mean sales taxes or things like that and does the index need to be adjusted for that? That would give rise to credibility issues. Would the policymakers really push tighter policy to bring that down to the price line, what would be the timeframe? In the past, I've always assumed that we wouldn't really have enough credibility to do that; we might not follow through on that.

Now, I think it's even more challenging because frankly, I think when we undershoot our inflation target, there are times when I'm not sure that we're going to bring it back up to the price line. That if it's under 2% for a while and you're accumulating disappointments in the price line, how many people are really going to want to see inflation go above 2% in order to get back to the price line? We'd have to have a lot of agreement and consensus on that. I think it's pretty challenging.

I think the same problem would be apparent if you were doing nominal income targeting as well because while on the one hand, the whole concept is, it's real growth plus pricing that matters for that. I think people would disentangle what the inflation experience is and kind of go, "Whoa, I don't like that higher inflation." So, you'd need an awful lot of agreement on a committee to do that. I worry about it.

Felix Vardy: Okay.

Fred Bergsten: Fred Bergsten from Peterson Institute. Let me complicate matters further by adding another variable. It's pretty clear when the other major central banks—Bank of Japan, European Central Bank—make their decisions on monetary policy. They have their exchange rates very much in mind.

Charles Evans: Mm-hmm.

Fred Bergsten: And, given the weakness of the economy, good chance they're going to stay in accommodative mode for quite a while and you never mentioned the exchange rate. Question: in addition to the variables you mentioned, do you have to take into account the current and likely stance of other central banks as they are setting their monetary policies if only to track the

likely affect through the exchange rate mechanism on your goals of inflation here and achieving your employment targets here as well?

Charles Evans: Yeah. In the time that I've been exposed to FOMC analysis and participating, there are a bunch of rules that we used to have in the past that we don't follow anymore. One of them is: you don't talk about interest rates, right? We talk about interest rates all the time now, but the other is the dollar. We're not supposed to talk about the future path of the dollar because that's the Treasury's responsibility, and yet the dollar has an impact on the way the economy works and how inflation comes in. So of course, we pay attention to developments around the world and also exchange rate movements, how they're going to likely work their way into inflation through different imported prices and things like that.

Certainly, if the dollar ended up very strong against everybody else, that would lead us to have fewer inflationary pressures in terms of our ultimate index and that would lead us to sort of—I mean, the implication of that in terms of goal-oriented monetary policy would be to provide a little more accommodation in the US to make sure that we do that. I think that our general policy approach as written down there a long run strategy is consistent with taking things like that into account.

If we're in an environment that is much different than what we've been thinking where there's ... whatever the right word is, currency wars taking place and that not all just coming from the US or whatnot—to paraphrase somebody else's criticism in 2010—we'll have to be paying attention to that. But I'm more hopeful that the world economy is going to improve and we're not going to find our self in that situation.

Adam Posen: Okay. So, I've got three people at this table. I've got [Inaudible 00:47:52] and then Andy and then Dave.

Male Speaker: [Inaudible 00:47:57] of Goldman Sachs. With all due respect to the difficulties and sussing out the attribution of this, the bond market is seemingly pricing in a terminal rate which is far lower than the median from the FOMC dots. Could you help us—

Charles Evans: Funds rate or the bond—funds rate?

Male Speaker: The bond.

Male Speaker: The bond market is [inaudible 00:48:21].

Charles Evans: [Inaudible 00:48:21].

Male Speaker: If you could talk a little bit about what the market has wrong and/or what should be the framework that we should be looking at this?

Charles Evans: Well, I mean, the committee doesn't submit 10-year treasury rates.

Male Speaker: [Inaudible 00:48:39].

Charles Evans: What?

Male Speaker: [Inaudible 00:48:41].

Male Speaker: It's possible the funds rate [inaudible 00:48:44].

Charles Evans: That's what I was asking about funds rate versus—

Male Speaker: Yeah.

Adam Posen: Yeah, yeah.

Charles Evans: So it's funds rate?

Adam Posen: Right.

Male Speaker: Yeah.

Charles Evans: Yeah. Well, yeah, so one of the differences there, so when the SEP submissions the longstanding instructions are always and I'm supposed to assume appropriate monetary policy, I'm going to take into account a whole bunch of different factors and I'm probably doing it different than my colleagues, what I mentioned robust control issues that make me nervous and I might have a reason for having a lower interest rate for longer than they do.

They generally have a forecast. I'm guessing that they have a forecast, they've got a policy that supports that forecast, that's what their dots are to hit the goals. The markets are some configuration of a whole bunch of risks and things which may or may not be in the center of the distribution sort of like mine.

So, if I look at a path that's—I'll be honest with you. I don't know how to interpret exactly what the market is thinking. And I do know that when you get different survey results, the [inaudible 00:49:59] forecast versus the average and things like that seems to matter enough. So, even if I don't understand it, I would say that what would do is we go out and we talk about the economy, the factors that are important for us and what we think

we need to do in order to achieve our goal-oriented monetary policy and the markets will fall into line or they'll have their own opinion.

Adam Posen: Money will be lost.

Charles Evans: Well, and made, people are going to make money and lose money. I don't know it's—

Adam Posen: Absolutely. The Fed is neutral on such things. Andy.

Charles Evans: Capitalism is all about being able to put your capital at risk to reap the rewards from those risky investments and feeling the brunt and accountability of things that don't go right. That's what we all believe and support, right?

Adam Posen: It's beautiful, yes. [Laughter]. It's just beautiful. Andy.

Andrew Levin: Sorry, I just wanted to--.

Adam Posen: [Overlapping conversation 00:50:52] it's Andy Levin from IMF and Dartmouth.

Andrew Levin: Sorry. The kind of—the “white of your eyes” and what's changed since the '90s with the kind of forward looking inflation targeting. The one factor that hasn't been mentioned is the anchoring of expectations. So in the '90s, a lot of central banks were still trying to earn credibility, that they were prepared to sort of defend the inflation target including the Fed. And, I think the general consensus over the last couple decades, most central—many of these central banks at least have earned a lot credibility including the Fed and it's evident from longer run inflation quotation surveys and various financial instruments.

So the question I guess would be in terms of your risk management, robust control sort of approach, what kinds of expectations information would lead you to become worried that the ground is shifting and expectations have started to become dislodged? Or conversely, would comfort you to say the Federal Reserve can afford to be patient because as long as objections remain firmly anchored, the likelihood of actual inflation get out of control would probably be pretty low?

Charles Evans: You know, so one thought I had when you mentioned the '90s is that that was a very interesting period. Most of those banks that started—you're an expert Adam—most of those banks that started adopting inflation targeting, I'm going to guess that every one of them had inflation above their ultimate objective. And so, of course, they were committed, expressing commitment, full commitment to it because getting down to

their target was a dream, a desire and they weren't going to get to there. So the '90s were one period.

The 2000s and after that are somewhat different period. We actually undershot inflation. And so, when the—May 2003, FOMC statement, it was news that the FOMC mentioned that inflation might small probability be undesirably low. We now have risks on both sides whereas before, most of the thinking I think went into getting down, achieving credibility and things like that. It's funny—not funny. Maybe it's coincidental, but once we started achieving our inflation objective, we found ourselves dealing with the zero lower bound more often than we did.

I think that's an unbelievable risk given the experience that we face. So, I don't quite know exactly how to grapple with that except to say we want to be—we want to make sure that we're focusing on our goals both of them being as aggressive as this called for in order to achieve our goals and being very confident that we will actually get to our 2%. And I think the most confident way to get there is to sort of have enough momentum that you're willing to overshoot a little bit. When you think you're just going to glide up to 2% over a few years, there's a risk that you never get there.

Adam Posen: All right, and Dave Stockton, please.

David Stockton: So President Evans, this morning, I think we established that there is incredible uncertainty about what the equilibrium in the labor market is and whether we're there or we still have a very long ways to go. We've also established that wages are quite growing quite slowly. And we talked a little bit about the possible presence of histories; in fact, your goal on full employment might actually depend upon the path upon which you approach it.

Would you see more merit or more risk in a strategy, a monetary policy strategy, that deliberately probed by pushing the unemployment rate down below what you might currently think as equilibrium and attempt to find out whether in fact the natural rate may be lower than you currently think? And perhaps with the benefit of undoing some of the damage that may have been done by the Great Recession? Or does that pose more complications and the risks than you would be willing to take?

Charles Evans: Yep. So, that's a good series of questions. I almost feel like Dave is making up for all those years when he was Director of Research and Statistics and I got to ask him the difficult questions.

I do think we're in a very challenging environment, the aftermath of the very difficult labor market environment. We're not past this in my

judgment and I think it will still be a while. I think many of the issues that have been discussed at this conference could continue to hold us back for a while. And, I think that there is wide scope for public policy broadly speaking to help address that.

In spite of all of the aggressive commentary that I've given today saying that we need accommodation and I'm willing to overshoot our inflation objective modestly for a period of time, we must keep in mind that monetary policy has great limitations; it's only monetary policy and we're not going to be able to use it to solve all the labor market problems that we have. We could perhaps provide accommodation, which in the absence of other accommodation from the fiscal authorities could help probe and test some of this.

But the terms of that would always have to be being true to our long run strategy that the committee adopted in January of 2012 to use a balanced approach to keep in mind that our inflation objective is 2%. Now, I think that an inflation objective of 2% and being symmetric allows us to accept that sometimes inflation is going to be above that and we don't have to crunch the economy to get it back because we have more credibility if we follow through on that, I think it would work out.

But, there are limits to what we can do in that role no matter how much all of us might like to see better labor market outcomes.

Adam Posen:

Wow! Well, thank you so much Charlie. I think President Evans has shown us just how much a monetary policymaker can do within the limits of their role and it's quite a lot. Thank you for sharing that with us today.

