Antonio Malek:

All right. Welcome, everybody. So my name is Antonio Malek. I'm a professorial lecturer here, at LSE at at the Department of Economics. It's great honor to introduce or host today Charlie Evans, the president of the Federal Reserve of Chicago. Before we start, I want to mention that at 8:00 PM we're going to have a conference with journalists that you guys are not entitled to stay. So at the 8:00 PM you're going to have to leave the room and let the journalists do their job. But for the moment, it's great pleasure to have Charlie today. Now, he's president and CEO of the Federal Reserve Bank of Chicago, has been in this position from 2007. Before that, it was director of research and has been an academic before that, has produced a lot of research, has been very influential. I was just checking Google Scholar and his most cited article has about 9,000 citations. It's pretty good.

Charles Evans:

Yeah, no it is.

Antonio Malek:

He has generated a lot of research in the following years. His work as researcher, as you can imagine, was mostly on monetary policy and its effects, like nominal rigidities, monetary policy, and its effects. I will say, I feel a little bit like a groupie that meets one of his intellectual... I want to say lights, because particularly this article that I'm talking about, about nominal rigidity and the effect of monetary shocks, has been studied by all the students in economics from when it came out, which was in the '90s, I believe, more or less.

Charles Evans:

2005.

Antonio Malek: 2005 was published, but it was [inaudible 00:02:18] right.

Charles Evans:

1998 [inaudible 00:02:20] path to publication.

Antonio Malek:

It was on NBR much before that.

Charles Evans: Right.

Antonio Malek:

I'm pretty sure.

Charles Evans:

Yes, it was.

Antonio Malek:

Now, what we're going to do today is a Q and A. We're going to start with a moderated Q and A, in which we have some questions that have been prepared for Charlie. Some of them are from the online audience and some of them are from you guys. And then we're going to give the opportunity to students that are present to ask questions. All right? So I'm going to ask you kind of a personal question. So the question is, what was your motivation in joining the Chicago Fed when you did?

Charles Evans:

Right. Right. So thanks very much. It's really a pleasure to be here. I'm happy to be here speaking to you students. A great forum for having a conversation like this. This particular question, why did I go to the Chicago Fed? I did my undergraduate at the University of Virginia. I worked for a couple of years, then I went to graduate school at Carnegie Mellon in Pittsburgh. I'm going to guess, Antonio, you went to graduate school, you got a PhD, most everybody says, "Oh, I want to be a university professor. I'd like to be an esteemed, distinguished university professor." But I wanted to be at a university, so my first job was at the University of South Carolina. About three years after into that my advisor, Professor Marty Eichenbaum called me and said there was an opening at the Federal Reserve Bank of Chicago.

Charles Evans:

He had moved to Northwestern and that's also in the Chicago area. And he was going down to the bank where they have a research department. And I had the opportunity to get a position there and it's like, "Well, instead of teaching and doing research in a university, I would do policy analysis and research." And I had a lot of time to do research and Marty Eichenbaum was there, very soon Larry Christiano was there. Those are my two co-authors on this really, really nice paper. If you ever have a chance to read it, I would read the abstract, at least.

Antonio Malek:

I could recommend.

Charles Evans:

Seven years in the making. But anyway, that's a different seminar to talk about. But it was just a very productive environment, and being able to advise the president of the bank who was a member of the Federal Open Market Committee, much like the Monetary Policy Committee here at the Bank of England, it just opened up opportunities, opened up ideas on what to work on. So very productive time. And then I was fortunate enough to... Oh I did a little management lightly, which is sort of a curse. When they find out you're good at that, they ask you to do more, and so I became research director and then I was lucky enough to be made president 15 years ago. So from policy advising to being a policy maker on the FOMC. So it's really been a wonderful opportunity.

Charles Evans:

Going to graduate school, getting a PhD, I know I was attracted, you probably are too, it's rather entrepreneurial. You get to choose what you want to work on. You could decide to work on something differently. Your colleagues may or may not like that if they hired you because of your expertise, but you can change what your interests are and you market it to other economists and that's part of the job is convincing them that you've got a good idea that they should be paying attention to. So it's really good. At the Reserve Bank in Chicago, they maintain that culture and it's really been productive, and I'm happy

to say that our economic staff, in the time I've been president... So I don't hire them anymore, but we've maintained that culture and really have a really good group. Have you ever been to Chicago?

Antonio Malek: Not to the Chicago Fed, no-

Charles Evans: You should come to Chicago sometime.

Antonio Malek: ... but I have some friends there.

Charles Evans: Yes. That's good. Very good. Very good.

Antonio Malek:

That's great. Do you miss anything from the academic life actually? That's my question.

Charles Evans:

I'm sorry?

Antonio Malek: Do you miss anything from the academic life?

Charles Evans:

So I've only spent three years as an assistant professor. I've done a little teaching on the side. I was-

Antonio Malek: Do you miss teaching?

Charles Evans:

It has its moments where I do. There's a sense in which I enjoy teaching, communicating what we're doing. I don't enjoy the assessment side of that and all of that. I mean who does, right? But sharing what I know and hearing what other reactions are is an important part of what we do. I mean, after all, during difficult times when inflation is high, we raise interest rates and that causes a lot of pain for the economy, and you better be able to explain why this has a value proposition for the longer term when you're making it difficult for households and businesses. So that's part of the communications.

Antonio Malek:

Another question is about your day to day responsibility, how they look like?

Charles Evans:

Yeah, this is a hard question because my day to day, it's different every day. I mean, when I'm getting ready to go to Washington for an FOMC meeting, I'm pretty much working on that week and longer. But then there are other times where our bank supervisory staff, they have some issues and so I meet with them to get up to speed on financial instability risks and things like that, so that can be part of it too. There's the research, the policy understanding, formulating policy decisions and positions, understanding financial instability risk and thinking about the banks in our five state district. We must have 1800 banks. Well, that's a big number, isn't Kathy? In our district that we-

Kathy:

We're under a 1000 now.

Charles Evans:

Yeah, but we have a lot of small banks and then we have some larger banks, and we also have some exchanges too, CCPs and all that. So there's interesting to work there. I'm the chief executive officer of the bank. I have a chief operating officer. We're partners in helping run the bank. We've got an executive management team and so there's a lot of people in departments that we want to work together and collaborate and share the best thinking there.

Charles Evans:

So making sure that we've got the right management team, that's important. Making sure that our staff has development opportunities. Leadership is an important aspect and trying to make sure that everybody has professional opportunities so they can advance in the bank. We spend a lot of time trying to make sure that we're as careful and we're doing the best job that we can in order to recruit the most talented, diverse talent that we can. We really benefit from that. So just a whole bunch of issues that we have to deal with. So on a day to day basis, I might do one not the other, but over the course of a month I'm engaged in all of those things, from executive management to supervision to monetary policy.

Antonio Malek: 60 degrees kind of charge?

Charles Evans:

Yup. Right.

Antonio Malek: Managerial, reserve, I mean, there is a lot going on.

Charles Evans: Right.

Antonio Malek:

So this question, I think it's particularly interesting also for me. So the question is about, given that you served since 2007, can you briefly describe how different the monetary response was in the financial crisis and in 2020 with COVID?

Charles Evans:

Right. So in the time that I've been with the bank, 1991... Oh, gosh, let's see. I remember 1992 from a distance. Somebody described this. You know when the Bank of England had to go off the exchange rate mechanisms and Italy too?

Antonio Malek:

Yup.

Charles Evans:

The other day I was listening to somebody from Italy describing all the challenges that they have and the lending, and I remember in the old days, depreciating currency was part of the response mechanism, sort of right-sized their debts. Although, it came at quite a cost. We went through that. In the late '90s, there was a tremendous increase in productivity in the United States, durable goods productivity, and we had a great run in the economy from '95 to 2005 and just had very strong growth, very strong productivity, that led to certain monetary policy challenges with the .com bust, the run up in the stock market, and things like that. 9/11, the aftermath of that horrible terrorist action and what that inflicted on the United States and the world through the war in Iraq and other issues.

Charles Evans:

By the time I became president in 2007, I kind of thought I was pretty prepared. I've got a good background. I do research on how monetary policy affects the economy, how you might think about fixing it. I've got this cool, dynamic, stochastic, general equilibrium model that we published and it kind of provides good intuition for how I should think about a lot of stuff, and then the great financial crisis hits and it's a lot of embedded leverage and derivative products that nobody really appreciated, understood that well. I always find, if you're interested in monetary policy, if you are interested in some of these case studies, these examples... And as I think back on the housing crisis in the United States, back in 2005, the FOMC, Federal Open Market Committee, had a meeting June of 2005. There's a transcript, you can read this. And the question was, is there a housing bubble? Our prices are high, prices are rents. Sort of like a price dividend ratio, which ought to give you an idea if they're fairly valued. They're kind of high, but who says that these price of houses shouldn't be higher?

Charles Evans:

Maybe it is a market price, maybe it's okay, but what if it's not? What if there's a crisis? The scenario goes, what if there's a national fall in housing prices of 20%? 20% is a big number. Nationally, never happened before in the United States. This is a big what if question, and you kind of go, "Well that would be pretty big. That would be a problem." Now, these mortgages, people wouldn't pay their mortgages. Well, banks would end up having people defaulting on their mortgages. Well, how much would that hurt? Turns out that banks hold capital. They hold capital against losses and it turns out that, you look at it, they had a good amount of capital. 93% of the banks in the banking system would pretty much be okay. There'd be struggles elsewhere.

Charles Evans:

That's before we even talk about how monetary policy can respond by reducing interest rates and making things a little bit easily. The ultimate assessment at that meeting was, it's probably something that we would get through, there'd be a recession, but we'd respond and it might not even be too high.

Now you get to 2007 and you kind of go, "Ugh, I didn't know they had that embedded leverage in those derivative products. I didn't know that everybody was levering up more on making those bets and other kinds of things." So the great financial crisis hits and it's kind of a good thing that Ben Bernanke was the chair of the Federal Reserve because he had studied the Great Depression. So we had a huge recession in the US. Now, the US is ahead of everybody else. I also remember as I talked to people here, policy makers, and it's kind of like, "Yeah in Europe things began in about 2010." But that's a different story completely.

Charles Evans:

But I mean, it was a struggle for everybody. But Ben Bernanke understood that the financial system was going to struggle and we needed a whole bunch of liquidity programs to help. After all, businesses were kind of saying, "I can't make my payroll. It's not because I don't have the funds. They're in commercial paper," Because nobody has them barren, not earning interest, "But the commercial paper market is not functioning so I can't access my funds and I can't pay people." Opening up those markets as quickly as we could was a big deal, but having said that, the banks lost a lot of capital. They were challenged. They struggled to make loans and we had a very slow recovery. But the answer there was, monetary policy was important. We had to really be aggressive and do that. Now, in 2020 we had a totally different outcome with COVID, the pandemic.

Charles Evans:

I can only guess how many times you've been here in the university, you're right in that period where we were shut down at the bank and the office and we couldn't be together. Now we can be together, so it's much better. But in the US, around the world, we kind of went home, shut things down for a while, tried to figure things out, brought the economy back. Businesses came back slowly in different ways. We used the playbook that we developed in 2008 under Bernanke's leadership and the committee. So that was available, but it just went on a long time. I mean, it was just different. So we did have a quick recovery in goods but gosh, the things that we've seen. All of a sudden households switch from goods and services, in-person services, going to diners, going to a movie, to goods production.

Charles Evans:

So we overloaded on goods production and that's stressed capacity and all kinds of issues. We still had accommodated monetary policy. That's a similarity. 2008, 2020 accommodated monetary policy. Now we've got inflation though, and the supply shocks that came from rebounding economy, reduced supply because labor force still is kind of uncomfortable coming back in some places, people are fatigued, businesses are at capacity. So we've got inflation and we need to address that, and it's partly big supply shocks and partly demand has outstripped the current reduced aggregate supply. So some similarities but some differences. This last part, people kind of go, "Well, this is like the '70s."

Charles Evans:

Fortunately, you're all too young to remember the 70s, but you could be historians and you read about it. But that was a period where the supply shocks were really challenging. Oil prices were very high and monetary policy just wasn't quite as good or on the ball back then. And they kind of allowed inflation to get out of hand more and more and more. So a lesson from that is, we don't want to revisit that and every central bank is increasing rates to address the high inflation now. We didn't have to do that during the 2008 period. It was quite the opposite. We had to get inflation up. So they're kind of different. I felt

like I was prepared. Undoubtedly my background helped an awful lot, but I've learned an awful lot during this time period too.

Antonio Malek:

It was quite [inaudible 00:17:59] for a while. I would say also I like to say to my students that being a macro economist author is like being in a zombie apocalypse, you never know what is going to happen next. We need to be aware to when a zombie's going to jump on you. It felt a little bit like that for about 20 years now/ I have a question about the Evans rule. Someone would like to know the rationale behind the Evans rule. Maybe you can explain what it is-

Charles Evans:

Sure.

Antonio Malek:

... the rationale behind and its successes.

Charles Evans:

So just to start back with the 2008 great financial crisis, and so we lowered interest rates to zero, basically the effective lower bound in December of 2008. We knew that we still needed to provide more accommodation and interest rates were at zero. Nobody contemplated negative interest rates, and even though European Central Bank, other banks have had negative interest rates, they've been only a little bit negative. Like minus three quarters of a point is a big negative, and we really needed minus 5% of additional accommodation in order to get the economy going, so that wasn't going to happen. So again, Ben Bernanke understanding financial markets and how they work with the macro economy, said, "Well let's buy assets. He doesn't like calling it "printing money". It's a little bit like printing money. You're creating reserves. You're easing credit conditions. He preferred to describe it that way. One way or another, our balance sheet got much larger. That provided accommodation.

Charles Evans:

March 2009, we announced that we were going to purchase \$1.75 trillion of assets over the next year, which is an enormous number at that time. We've done more since then. By late 2009 and into 2010, people were kind of going, "I think we're getting out of this." Ben said, "Oh I see green shoots. The economy's coming back." And then the first part of 2010, it's kind of like people started going, "We don't need all this accommodation. When do we get to raise rates?" And I'm kind of going, "I don't know." Second part of 2010, this is not going well. It's not coming back. Inflation is still low. We need to do more. Late 2010 we did QE2, quantitative easing in the second version where we said we were going to buy \$600 billion. Get into 2011, things are going better. "Oh we don't need to do all this. We can start raising rates."

Charles Evans:

In fact, the committee got so excited about that, we published exit principles for getting out of asset purchases and all of this. By the summer of 2011, no, this isn't going very well. Inflation's very low, unemployment is still 9%, and in my opinion... So we were criticized for buying asset, and so we ended up doing the, "Let's sell the short end of the yield of our portfolio and by the long end maturity expansion program." And we were able to provide accommodation in the same way without increasing

our balance sheet. We just increased duration by quite a lot. Right? All these students know about duration. You earn more money when you come out if you know about duration and finance and all. Isn't that still true? Any rate.

Antonio Malek:

It's still true.

Charles Evans:

Okay, any rate. So by September of 2011 I kind of said, "Our problem is we keep saying we're tired of accommodated policy and low interest rates, and so markets keep pricing in higher interest rates. These higher interest rates are stepping on the accommodation that we need." And so we need somehow to say, "We are going to be in this for quite some time." And so I started saying, "We need to announce that we will not be increasing interest rates before the unemployment rate goes below..." We ended up saying 6.5%. It was 9%. So clearly we're not going to raise rates until we get lower unemployment, 6.5, unless inflation rises above 2.5%. So it's a very risk... it's kind of conservative in the way that it looked at. It kind of said, "We're going to continue to do this until we see success on the real economy measured by 6.5% unemployment, but I could be wrong and maybe things are going to come back, and the measure of that would be if inflation goes above 2.5%." At that time, it was 1.5%.

Charles Evans:

So if inflation comes back, then all bets are off and we can raise rates. We didn't raise rates until 2015 because things kept happening, but unemployment started coming down and so we sort of... once we adopted what you're referring to as the Evans rule, thank you, threshold base for guidance, things began to improve then more sustainably and unemployment fell below 6.5% within a year and we were able to take that out, but it still wasn't time to raise the funds rate. But that's a way of using thresholds to kind of say, "We're not going to make a move until these conditions are met."

Antonio Malek:

All right. So I think another very interesting question is about quantitative easing. So some economists have argued that quantitative easing has contributed to the increase in inequality and has allowed debt levels to rise significantly. How effective do you think quantitative easing was, and what would you say to the critics of quantitative easing?

Charles Evans:

I mean, I've already mentioned that in the situation after the great financial crisis when the economy was still not good, unemployment was 9%, that we needed to provide more accommodation. But because interest rates, the policy rate was at zero, we had to do something else and we chose to buy assets, so that's quantitative easing. It is the case that as we buy long duration assets, that has an effect of taking duration out of the hands of investors. They have funds given back to them and now they have to put the funds somewhere else, and when they put the funds somewhere else, it helps other parts of the economy. That's sort of the idea.

Charles Evans:

It's a portfolio balance effect. It lowers long term rates by some amount, people have quantified it, but anyway, you can try to quantify that. There's going to be a lot of uncertainty. It sort of depends on a

whole host of assumptions, like preferred habitat, which is people really wanted that 10 year treasury and now that you take that out of their hands, what are they going to do? They're putting it somewhere else and they're not just going to kind of re-move everything around so they're back happy the way they were without having an effect. It certainly shows that you're committed to continuing accommodation. I think the singling effect is very important. But one way or another, broadly speaking, quantitative easing is just another way of cutting interest rates. It's another way of providing accommodation.

Charles Evans:

So I would say that the real force of this question is, when you provide a lot of accommodation and you lower interest rates, is that somehow privileging certain sectors of the economy? Is it driving up equity prices and things like that? Well, I mean a simple answer is, equity prices are present-value discounted, future cash flows. Discounting at a lower interest rate's going to increase that value. So certainly that is the case, but it's also the case that you're lowering borrowing costs for households who might otherwise not decide to buy a durable good, make an expenditure, buy house if mortgage rates are like that too, and so you're trying to move some future consumption expenditures from the future into the current period where you need it a lot, and that benefits everybody.

Charles Evans:

It benefits businesses and people choosing to work, lowering unemployment, but it does benefit asset values to some extent and associated property values and things like that. It disadvantages savers who are looking for safe savings. I think of it as past book savings on your bank account or savings account, so it does that. But of course I think those savers are better off if the economy moves to a better economy where you have real rates that are a lot better. So getting the economy going, living with our dual mandate where we're supposed to support maximum employment and price stability is what we're after, and that's what we're doing with our tools.

Audience 1:

Sir.

Charles Evans:

Yes.

Audience 1:

Since you mentioned the dual mandate, was there any consideration by your FOMC to advise skilled policy makers to aggressively target 6.5% unemployment?

Charles Evans:

I'm glad you mentioned that because the second point... As I thought about this a little bit, I had a second part of this, which is the other reason why we ended up going to the lower bound. Back in 2011 in the United States, there were elections the previous year. The opposition party at that time, the Republicans, took over in the House of Representatives, and in the US we've got an annual budget that has to be approved. They end up basically just doing a consolidated one vote for everything kind of thing, but they said, "We don't think we should approve a budget unless you do," and then whatever the political agenda is. So it was used for sort of a game of chicken. Another aspect is, for reasons that

escape me, once Congress and the president have agreed to spend and if they don't have enough tax revenue, well, then you have to borrow, you run a deficit.

Charles Evans:

I would think that the act of approving the expenditures would be enough to do that, but we also have another law which is, well, the government debt can't exceed a certain number. It's the debt ceiling. So when you hit the debt ceiling, it's got to be increased. Well, if you don't increase the debt ceiling, then all of a sudden you can't make payments on certain loans, so we enter a period of austerity. I think in the UK, the government chose that and around the world. Long-winded way of getting, if the fiscal authorities had supported more aggregate demand at a time where the economy had high unemployment, that would've helped get the economy going in a way that perhaps we wouldn't have had to have interest rates lower for as long as they were.

Charles Evans:

Unemployment could have gone down, inflation would've picked up towards our target, and we could have gotten out of the effective lower bound sooner. So the coordination of fiscal... So I used a bad word there because we don't coordinate. But if all policy makers have in mind the best economy that they can help support given all their other objectives, then that can support more effective monetary policy that's not so extreme and we wouldn't have to increase our balance sheet as much as we have done because we wouldn't have had to do quantitative easing.

Antonio Malek:

All right. So I'm going to move to some of the questions that we received from the online audience. So we have Edward James from Imperial College that is asking... is a little bit tricky but I'm going to ask it anyway. Do you support a fed rate hike prior to the November meeting?

Charles Evans:

Oh, I don't talk about this like that, right? Now, it is interesting, in the time that I've been at the bank, there used to be two pieces of advice which were mandates, which is, as an economist going out and speaking in public, there are two questions you don't answer, what are interest rates going to do or when do you raise them? The other one is what do you think about the value of the dollar and should action be taken to change that? The answer to that also includes, the dollar is the province of the treasury secretary and she is in charge of that and we don't talk about that and we always hope that the treasury secret, Terry, doesn't say things about what the interest rate should be. Now, what's interesting is, since then, talking about where interest rates are going has become an active tool of policy for guidance.

Charles Evans:

So the question is so careful and specific, I can't answer it. If the question is where are interest rates headed in the US, I would say we published our summary of economic projections just last week and a very large part of our 19 member committee submitted projections that assumed that the federal funds rate next year would increase to 4.5 to 4.75. The median of 19 participants said it would be 4.5 to 4.75. If you kind of look at the general pattern, I think it's pretty clear that everybody has in mind a continued increase until we get to that point. I'd say like March 2023 we'll be at that point. The clustering of

those... I said the median, but the clustering is so narrow. It's really pretty much a consensus view on that. But next meeting, no I can't say anything. Of course not.

Antonio Malek:

I know. I know. I have a question about UK actually, I'm not sure if you can comment on that. What do you think about the UK mini budget and the falling funds, and how do you think the Bank of English should respond in this situation? Maybe the last part.

Charles Evans:

I can't really address that either. I'm just a guest here. I would say that in the US, if you listen to commentary and the criticism of where we are, inflation is high. It's much too high, and it's a fair game for critics to sort of say, "Geez, the Fed should have started way before March. Didn't they know inflation was getting out of hand?" At that time, the April 2021 FOMC statement mentioned that we are seeing elevated price increases in some segments. Used car prices went up 10% in one month. That's one month rate, not annualized. The next month they went up 7%, and then the next month they went up 10%. It has a very small weight as a component of the CPI, but a small weight against a really big number and then you annualize it, that ends up having a big effect. New cars, they weren't making them because of the chip shortages. Durable goods were also in short supply for the same thing. Furniture a whole host.

Charles Evans:

15% of the core CPI basket increased by 20% as of February 2022, but sort of before that, we kind of thought this and we said transitory. We said, "This is going to be transitory and then they're going to come down." Okay, well now that's a derogatory term. I mean, we shouldn't have said transitory. It's been more persistent. I don't think it's permanent. But we've ended up increasing interest rates quite expeditiously. We have increased interest rates in the US by 300 basis points in seven months, which is extraordinary. And when I said, in the US if you heard this commentary, you would kind of hear that it's a US problem, but it's really a global inflation problem. So I mean here in the UK inflation is high, energy prices are high. In Europe inflation is high. Around the world inflation is much higher.

Charles Evans:

Oh, in Japan, that's had a woeful experience trying to get inflation up, it's not nearly as high, but it is more elevated. And in Switzerland, for some reason, it's not quite as high, but of course they have a history of lower inflation on average and it's still going up. So central banks around the world are in the middle of this rising interest rate environment, and like I said, it's worldwide with interesting difficult variations. On top of that, like natural gas prices have increased by factor of seven here, I believe. In Europe, the Russian invasion of Ukraine and all of the ugly economic sanctions and responses to sanctions that have been taking place with regard to energy and other things has just made it a really horrible environment. And it's supply driven, but a concern for monetary policy is that it's very persistent and it gets into inflation expectations. That's when it would be really difficult for us.

Antonio Malek:

I think we're going to open to questions from the audience. Do we need a microphone for that? No? All right. One here.

Audience 2:

Thank you, Mr. Evans for the speech. So you mentioned about forward guidance in your first question, and I was just wondering... Yesterday in your [inaudible 00:35:55] speech you mentioned about terminal rate and US going to reach around 4.5% and rate hikes going to continue into 2023, which sounds like forward guidance to me, but I'm not exactly sure. So for me, I saw that a lot of central banks in the UK, in the EU, also the Fed, is sort of taking this meeting to meeting approach, I guess, starting from this year. So I was just wondering, does that meeting to meeting approach suggest that actually central banks are retreating from this idea of forward guidance because it's not really credible in a way because no one knows what's really upcoming next? I just want to know what's your opinion on effectiveness of forward guidance and is that going to be a temporary retreat from this or is it permanent?

Charles Evans:

Right. So yes, very well stated. So the challenge for policy makers when it comes to forward guidance is, why do I have to offer forward guidance? Anybody who's paying attention... now, they're not necessarily as technical as you might be and as I'm going to try to describe this... but in the policy environment, and you kind of go, "I'm supposed to be delivering maximum employment and price stability." Sometimes there's a little bit of a trade off but sometimes they are very well aligned as if it's a divine coincidence. So if unemployment is high, inflation is usually too low, so providing more accommodation is the right thing to do. "So since everybody knows what I'm supposed to do, I've been doing it for a while, they might be able to understand my reaction to where we are. They'll figure it out. So why do I have to do forward guidance?"

Charles Evans:

On top of that, if I decide I do need to do forward guidance, it's usually against that reaction function because all of those smart people who are looking at the normal reaction function are kind of going, "This is about the time they should be raising rates." Think about what I said relative to the threshold based forward guidance and the committee in 2010/2011 going, "Ooh, it's time to raise rates." You need to sort of say, "This is different. It's a different policy and you want to commit the committee to that." Committing the committee to something that they will later regret is not something easy to explain or convince people to accept. That's part of why policy makers will kind of go, "I don't want to do forward guidance anymore because I shouldn't have to do that, and every time I've done it, I haven't liked it because it made me take an action that I didn't like. Even if it ended up in a better outcome, that still went against what I'm thinking."

Charles Evans:

Now, you mentioned I referred to the summary of economic projections, and so that is me and my colleagues showing our work. I would say this is showing our work for our projection. I have a forecast that says inflation's going to be 2.8%/3.1% next year. Why? Well partly because of my policy projection. Yeah, some people don't like to show you their work because it's not the easiest thing in the world, but once you see that, it's an indicator of where the committee thinks it's going. It's not forward guidance, but it is forward guidance. You see, it's not the, "I'm telling you in a statement that this is what we're going to do, but I'm kind of showing you that if you're paying attention, that's kind of where we're going."

Charles Evans:

So I would say the SEP is forward guidance, but in a way that some policy makers would go, "Well, that's okay, but I'm not saying that's how it's definitely going to be." There have been times in our policy statements where we've been very prescriptive. We're not going to do anything we do not expect. We never say we won't, but we always say, "We do not expect that we will have to do that until these conditions are met." And in September of 2020, we are very prescriptive that we were going to wait quite a while until inflation got up to averaging 2% and we were at maximum employment. And as we got closer to that, it was kind of like, "Oh, it depends on what I mean by maximum employment. Things are getting better and inflation's going up and all of that." So that's part of what's going on.

Antonio Malek:

All right, back there.

Audience 3:

Thank you very much for coming to speak with us. I had a question about, in 2020 the Fed adopts the flexible average inflation targeting. I'm assuming that was in part because of the experiences in the 2010s, but how did that impact the response to once we start to see higher inflation in the 4-5%, which I believe under the prior framework would've been a lot more alarming? Did this new approach make the response be significantly later or do you not think it had that big of an impact?

Charles Evans:

Right. Right. Yes, I can tell you've done your research on this question because you're citing that we adopted flexible average inflation targeting. Many, many people describe what we came up with in 2020 as flexible average inflation targeting. We actually never say that's what we're doing. We had discussions about, what if we did adopt that? What would it look like? You can see response rules and you have alternatives to that, and at the end of the day, the Federal Open Market Committee did not say that we're doing flexible average inflation targeting. Now, we did say that our objective is price stability. We interpret that as averaging 2% over time on average, and also inflation expectations which are consistent with 2%. We did more explicitly point to, if there's a period where we have been underrunning our inflation objective for a period of time, we would be willing to overshoot 2% in order to average... and then we're kind of vague about the wording there over time.

Charles Evans:

It doesn't explicitly say flexible, average inflation targeting, although, we do say average and it does have that in there. You have to fill in so many more details in order to kind of say, "Well, what would flexible average inflation targeting be?" But we have those elements to it for sure, and that is part of what the angst was in 2021 when inflation started going up, because after all, we were kind of expecting to be facing a situation where the Trump administration had cut taxes, they probably didn't consider well the implications of the tariff war that they started that led to a little slow down... well, slow down around the world and a manufacturing recession in the US. Nobody contemplated COVID, but we were kind of expecting that the economy would get better, hit full employment, and put pressure on resources, so inflation would be going up and up slowly according to the Phillips Curve.

Charles Evans:

Instead, it leaped up because of these supply shocks, semiconductor shocks, labor shortages, and things like that, and next thing you know, we're talking about 8%. It's kind of like we don't have to talk about

averaging 8% into these other numbers because this is just unacceptable. So the circumstances just changed so quickly that we're faced with a different situation. If we ever found ourselves back around 2% and not subject to supply shocks, some of the things you're talking about might be more relevant.

Antonio Malek:

Right here.

Audience 4:

Professor, I had a question. I read an article by Paul Krugman in the New York Times where he was describing that perhaps why he was wrong about inflation was because his view of the Phillips curve was wrong, that it wasn't a linear relationship, instead it was peak and the slope changes as you get closer to full employment. What do you say [inaudible 00:44:22]?

Charles Evans:

So I mean, the challenge with inflation and talking about inflation is, it's extraordinarily difficult to get somebody you're having a conversation with who is a little bit critical or whatever to say... I want to go, "What's your model of inflation determination?" I mean, I've told you how I think about it. It is a Phillips curve. It's got special factors, it's got transitory factors, and this is the Janet Yellen Phillips curve going back to 2014. Actually, probably going back to 2012 because she was also a supporter of threshold forward guidance and her comments couldn't say exactly that, but it was related to that. It's kind of like, "Well it's going to depend on slack." It's going to depend on special factors. Relative prices can change, supply shock and the persistence of that would be important. International factors would be another factor. Inflation expectations are really important.

Charles Evans:

Now, as a side note in the '70s, there was an accelerationist view of the Phillips curve where every time inflation went up it sort of stayed there and you built that into it. With inflation expectations being anchored and the Phillips curve being flat, it's really inflation expectations are there, so I got slack and I got inflation expectations. Unless inflation expectations go up, it's not going to contribute to that. But after I explain that and people are critical, I kind of go, "What's your theory?" So Paul Krugman's very good at that and he's offering up a theory and it's a Phillip curve. But it's kind of like, "It doesn't seem as if it's as flat as used to be." Back in 2019 and before, we would have a discussion about exactly this because the unemployment rate was 3.7%.

Charles Evans:

The inflation rate had increased to 2%, but wasn't more than that. People were saying, "I think the Phillips curve might be kinked at 3.5." When we hit 3.5 and if we go further, inflation's going to be more because you can't get it out of the models. You do the linear model, what's it mean to drive inflation... sorry, I keep doing that... unemployment down to 3%. Not a lot for inflation, but if you got a kink, you go up. There's a big deal. If it's a non-accelerationist Phillips curve, inflation goes up steeply as resources become more scarce, but it comes down steeply as you loosen up. As opposed to accelerationist would be, you go up and then you kind of stay up until you do something else. We're in a different environment now. It's clearly steeper in a weird way. So I agree with Krugman, but then it comes down to details. I've heard a lot of business people talk about how there are labor shortages. They can't find workers.

Charles Evans:

If you go outside metropolitan areas into small market areas, rural areas, exurb areas, where manufacturers set up in these communities, it's often the case that the size of the workforce is well matched with the number of business entities, and so unemployment can be 2% there and they work fine. People stay there. They like where they live and they might change jobs among the community, but they sort of stay there. Now, that same model doesn't work the same way. Some of them have gotten jobs from west coast firms. If you've been working from home, if you've been in a digital environment, you might be working in Iowa somewhere. But you live in Iowa, you could work for Amazon, so that's a change. That's going to lead to higher wages, that can lead to higher price pressures, that type of thing. It's also the case that people are fatigued.

Charles Evans:

People don't necessarily want to work overtime the way that they did before, so the model that worked before might not work again. This is showing up in more expensive parts to original equipment manufacturers, car companies, and things like that, and those are higher prices. So we're seeing higher prices coming from those labor shortages for a given unemployment rate that we didn't see before. That's an example of a steeper Phillips curve. If that works its way out, that'll flatten out again, so that's part of the way that the supply response could flatten out the Phillips curve.

Charles Evans:

You have to have a discussion about your inflation determination mechanism to make sense of this and evaluate somebody's argument. When somebody just goes, "That Biden fiscal package was too much and infrastructure's too much and the economy's going to overheat, and we're going to get a lot of inflation," then it's kind of like, "Maybe. Could you tell me more about that inflation mechanism? Because that was that flat Phillips curve that didn't work before we had supply challenges." Those earlier arguments came about. So it's very complicated and if you're not willing to show your work, I don't see how you have a good conversation.

Antonio Malek:

Other questions?

Charles Evans:

These have been terrific questions. Yeah.

Audience 5:

When you actually have a target impact funds rate, how do you decide on how much to raise in each meeting? So you basically see the results of each rate hike in on average 12 to 18 months, so how do you decide in seven months you raised 300 basis points, but it could have been 100 basis points in three months and then see the impacts more clearly and then just act accordingly?

Charles Evans:

As economists with a lot of training, with analysis at our hands, statistics, estimation methods, modeling, it makes a lot of sense that we try to put a lot of precision on something like that, right? You've got a reaction function, I've got a target, I got a little model. It looks to me like I need to increase it by this amount within this time period. There's a lot of uncertainty about all of that of course, so that analysis

helps inform policymakers, but policymakers also get analysis where it's kind of like, "Suppose..." We had a lot of discussion about this before when we were trying to get inflation up and we had interest rates low. It's kind of like, "Should we keep interest rates low for a long period of time, see inflation go up, and then steeply increase the funds rate or should we start gradually increasing the funds rate?" Because it is still going to be accommodated monetary policy as long as the federal funds rate isn't at the neutral rate, it'll just be a little less accommodative along the way.

Charles Evans:

You look at the analyses comparing those, and it doesn't really make a lot of difference in the model. If you do it really quickly... I'm sorry, if you do it for a long time and wait, or if you do it gradually, you kind of got the same outcome because Phillips curve's not that steep and things like that. So in the current environment you have elements of the same thing, which is inflation is high. I know I need a more restrictive stance and monetary policy. Should I front load? Should I try to make improvements right away and get closer, because we're starting at zero in the US and most everybody did, or can I take my time?

Charles Evans:

Well, so one thing constant in all of those analyses are, there's a restrictive setting of your policy rate, inflation adjusted, so it's a real rate that ought to impart the appropriate amount of restrictiveness for households, businesses, investors that would bring inflation down. So there's a level that you're going after, and then the question is how fast do you have to get there? I think when you're really behind in getting started... and I'd say in the US we were behind, so we tried to front load, and so we wanted to get closer... This is my own interpretation of what we're doing. We wanted to get closer to not being really wrong and overly accommodative, but once you get up to a certain point, it's like, "Are you finding a credibility problem? Is it that the financial markets and everybody else don't believe what you're doing and so you have to continually do more in order to convince them you're in it to win it, that you're going to do it?"

Charles Evans:

If you've got full credibility, if you've got inflation expectations roughly in line with your ultimate objective, even though inflation is higher, you could imagine stretching out the increase so that you can see the data come in and evaluate a little bit more, as opposed to having to take a bit of a risk, which is, "I think I have to go up this high. I'm going to get there really quickly and then I'll sit." That might be relatively equivalent. The risk is, I go up and then I get a piece of bad news that I think people don't believe me anymore, I have to do more. It's that overshooting risk, how do you balance those choices? One way or another, discretion and art comes into this it seems. We do not have a policy rule that has covered a broad enough set of scenarios, like we're facing now or we have faced in the last 15 and 20 years, that I would put a lot of faith in all by itself.

Antonio Malek:

All right, I think we have to get to a close, so I would like to thank our guest here. Charlie, thank you very much for your answers.

Charles Evans:

Thank you. Thank you, Antonio.

Antonio Malek:

I'd like to thank the organizers, Tema and Steven. Tema and Steven. Okay. Did work out very well. Thank you very much for organizing.

Charles Evans:

It's really great being here, and I'm glad that for whatever procrastinating reason, I never did this by video when I was asked earlier. I'm happy that I could be here in person, so nice to see everybody. Thanks.

Antonio Malek:

Thank you very much. So we're going to vacate the room for the press conference.